Neural Human Human PRAME	PRAME Human Human Human Human Human	Human Human Human Human	Human Human Human Human	Human Human Human Human Human	Human Human Human PRAME	Abbals36 Neural th Abj1940 Neural th Adm73128 Human PRA Adm73130 Human PRA Adm73131 Human PRA Adm73133 Human PRA Adp04309 Human PRA Adp04309 Human thy Aab31270 Peptide 1 Abb81533 Neural th	Neura Humar Humar Neura	Abu02988 Human neu Abj19418 Neural th Aay7924 Human pap Abb81535 Neural th	Abb81550 Neural th Abb02984 Human neu Abj19434 Neural th Aar80293 Trehalose Aar8999 Polyketid Aay58899 Polyketid Aay55381 Neisseeria Aay55381 Neisseeria	Aau85996 Human PRA Aaw9447 Muteant pr Adm01215 Targeted Aab34676 Human sec Aam17668 Peptide # Abb316687 Peptide # Abb31475 Peptide # Abb31474 Human bra Amm57451 Human bra Abg31539 Human liv Aam6331 Peptide # Abg33474 Human pol	Human po N. gonor
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5.1.6 Compugen Ltd.	:1 Search time 160 Seconds (without alignments) 9.669 Million cell_updates/sec			3: 2105692	·		ed by chance to have a the result being printed, ore distribution.	Description	Neural Neural Neural Neural Neural Neural	Neural	Abb81537 Neural th Aao22380 Protease
GenCore version 5.1. Copyright (c) 1993 - 2005 Comp	OM protein - protein search, using sw model Run on: July 5, 2005, 16:24:47 ; Search (witho	score:	Scoring table: BLOSUM62 Gapop 10.0., Gapext 0.5 Searched: 2105692 segs, 386760381 residues	Total number of hits satisfying chosen parameters Minimum DB seq length: 0 Maximum DB seq length: 2000000000	Post-processing: Minimum Match 0% Maximum Match 100% Listing first 100 summaries	A_Geneseq_16Dec04:* 1: geneseqp1980s:* 2: geneseqp1990s:* 3: geneseqp2000s:* 4: geneseqp2010s:* 5: geneseqp2011s:* 6: geneseqp2013s:* 7: geneseqp2003bs:* 8: geneseqp2003bs:*	Pred. No. is the number of results predicted by score greater than or equal to the score of the and is derived by analysis of the total score di	SUMMARIES Result Query No. Score Match Length DB ID	21 100.0 21 100.0	9 21 100.0 6 5 ABB81514 11 21 100.0 6 6 ABJ19442 12 1 100.0 6 6 ABJ19418 13 21 100.0 6 6 ABJ19418 14 21 100.0 6 6 ABJ19425 14 21 100.0 6 6 ABJ19443 15 21 100.0 7 5 ABB81515 17 21 100.0 7 5 ABB81518 18 21 100.0 7 6 ABJ19414 19 21 100.0 7 6 ABJ19412 21 21 100.0 7 6 ABJ19412 22 21 100.0 7 6 ABJ19412 23 21 100.0 7 6 ABJ19412	21 100.0 8 5 21 100.0 8 5

ABJ19416 standard; peptide; 4 AA.

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(I) have neuroprotective, noctropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harili peptide sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harili peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harili peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnosing Alzheimer's disease, Down's syndrome, neuroectodermal tumours, astrocytomas, glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of
Aam94835 Human rep
Ade45166 Human alp
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                                                                     ALIGNMENTS
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 AAM94835
ADE45166
                                                                                                                                                         ABB81512 standard; peptide; 4 AA
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Best Local Similarity
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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
                                                                                                      Nootropic; neuroprotective; cell death; tissue necrosis; NTP;
neural thread protein; neurodegenerative disorder; Alzheimer's disease.
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                                                                                                                                                                                                                                                                                                                                                                      Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP).
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Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma;
hypoxia; ischaemia; cerebral infarction.
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                                                                               Neural thread protein peptide region #6.
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Best Local Similarity
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                           ABJ19416;
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25-OCT-2001; 2001WO-US042813.

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RESULT 2 ABJ19416

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ABB81513 standard; peptide; 5 AA.
                                                                               Claim 1; Page 29; 53pp; English.
      27-OCT-2000; 2000US-00697590.
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having an amino acid sequence selected from ABBB1511 to ABBB1259 and their homologues, which are referred collectively as Harlil peptides (I) [1] have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harlil peptide sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnostics or dispostices. In particular, the peptides are also useful for diagnostics or dispostices. Since also useful sease, Down's syndrome, neurocetcodermal tumours, astrocytomas, glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of
                           therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
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neural thread protein; neurodegenerative disorder; Alzheimer's disease.
                                                                                                                                                                               The present invention describes a neural thread protein (NTP) peptide
  New Harlil peptide sequences of the Neural Thread Protein, useful in
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                                                                                                                            Claim 1; Page 29; 53pp; English.
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The paye neuroprotective, nootropic, vasotropic and cerebroprotective cativities, and can be used in peptide therapy. The Harlil peptide sequences can be used as analogues for NTP in therapeutic or diagnostic saspay by replacing NTP with the peptide in such an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful in for diagnosing Alzhaimer's disease, Down's syndrome, neuroectodermal tumours, astrocytomas, care also useful as targets for drug development for the treatment of
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Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma;
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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP).

Claim 2; Page 45; 60pp; English.

Focht MSS, Bibiano R;

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RESULT

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The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABB81511 to ABB81529 and their homologues, which are referred collectively as Harlil peptides (I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harlil peptide sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnostics diagnos. Down's syndrome, neurosctodermal tumours, astrocytomas, allobastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
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                                                                                                                       Neural thread protein; NTP; Harlil peptide; Alzheimer's disease; Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma; hypoxia; ischaemia; cerebral infarction.
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                                                                                       Neural thread protein (NTP) peptide #18.
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      ABB81528;
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The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nootropic; neuroprotective; cell death; tissue necrosis; NTP;
neural thread protein; neurodegenerative disorder; Alzheimer's disease.
                                                                                                                                                                         Gaps
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                                                                                                                              100.0%; Score 21; DB 6; Length 5; 100.0%; Pred. No. 1.8e+06;
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100.0%; Pred. No. 1.8e+06;
tive 0; Mismatches 0;
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                                                                                                                                                                         4; Conservative
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Matches 4; Conserv
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                                                                                                                                                   Best Local Similarity
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                                                                                       Sequence 5 AA;
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                                                                                                                            Query Match
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Gaps

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ABB81528 ID ABB8 XX RESULT 7

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Length 6; 0; Indels

Homo sapiens.

02-MAY-2002

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The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABBB1511 to ABBB1529 and their homologues, which are referred collectively as Harlil peptides (I) (I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assays. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnostics.
                                                                                                                                                                                     New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nootropic; neuroprotective; cell death; tissue necrosis; NTP; neural thread protein; neurodegenerative disorder; Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disease, Down's syndrome, neuroectodermal tumours, astrocytomas, glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of
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                                                                                              Bibiano R;
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100.0%; Pred. No. 1.8e+06;
iive 0; Mismatches 0;
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                                                                                              Focht MSS,
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                                                                                                                                                                                                                                                                                                               Claim 1; Page 29; 53pp; English.
27-OCT-2000; 2000US-00697590.
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                                                                                              Fitzpatrick J, Averback P,
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                                               (NYMO-) NYMOX PHARM CORP.
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Best Local Similarity
Matches 4; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABB81511 to ABB81529 and thaving an amino acid sequence selected from ABB81511 to ABB81529 and the confective homologues, which are referred collectively as Harlil peptides (I).

(I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harlil peptide sare also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics.

In particular, the peptides are also useful for diagnostics.

In particular, the peptides are also useful for diagnostics.

Colloblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these diseases
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                                                                                                                                                                                                                                                                                                                                                                                                    New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
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Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma;
hypoxia; ischaemia; cerebral infarction.
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                                                                                                                                                                                                                                                                                                             Focht MSS, Bibiano R;
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                                                                                                                                                            25-OCT-2001, 2001WO-US042813.
                                                                                                                                                                                                            27-OCT-2000; 2000US-00697590.
                                                                                                                                                                                                                                                                                                        Fitzpatrick J, Averback P,
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Matches 4; Conserv
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Homo sapiens

ABB81514;

RESULT 9

Query Match

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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
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neural thread protein; neurodegenerative disorder; Alzheimer's disease.
                                                                                                                                                                                                                                                                jic; neuroprotective; cell death; tissue necrosis; NTP;
thread protein; neurodegenerative disorder; Alzheimer's disease.
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                                                                                                                                                                                                                                Neural thread protein peptide region #8.
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                                                                                                                 ABJ19418 standard; peptide; 6 AA
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HARL
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                                                                                         The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oic; neuroprotective; cell death; tissue necrosis; NTP;
thread protein; neurodegenerative disorder; Alzheimer's disease.
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disease, by contacting the live tissue with at least one segment neural thread proteins (NTP).
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100.0%; Pred. No. 1.8e+06;
tive 0; Mismatches 0;
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100.0%; Pred. No. 1.8e+06;
ive 0; Mismatches 0;
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                                                             Claim 2; Page 45; 60pp; English
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Best Local Similarity
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ABJ19432

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Gaps

Gaps

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The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABBB1511 to ABBB1529 and their are referred collectively as Harili peptides [1].

(I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harili peptide cequal sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harili peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harili peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics.

In particular, the peptides are also useful for diagnostic Assays, protein and antibods purification, therapeutics or diagnostics.

In particular, the peptides are also useful for diagnostic Alshamer's disease. Down's syndrome, neuroectodermal tumours, astrocytomas, are also useful as targets for drug development for the treatment of these diseases
                                          The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
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Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma;
hypoxia; ischaemia; cerebral infarction.
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100.0%; Pred. No. 1.8e+06;
ive 0; Mismatches 0;
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    Claim 2; Page 45; 60pp; English.
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Best Local S:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (MTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nootropic; neuroprotective; cell death; tissue necrosis; NTP; neural thread protein; neurodegenerative disorder; Alzheimer's disease.
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100.0%; Pred. No. 1.8e+06;
ive 0; Mismatches 0;
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                                                                                     16-MAY-2002; 2002WO-CA000712.
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WO200292115-A2
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New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
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                                                    ABB81518 standard; peptide; 7 AA.
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                                                                                                                                           Neural thread protein (NTP)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABBB1511 to ABBB1529 and their homologues, which are referred collectively as Harill peptides and carboroctective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harill peptide activities and can be used in peptide therapy. The Harill peptide assays by replacing NTP with the peptide in such an assay. The Harill peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harill peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnosing Alzheimer's disease, Down's syndrome, neuroectodermal tumours, astrocytomas, glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of
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                           100.0%; Score 21; DB 5; Length 7; 100.0%; Pred. No. 1.8e+06;
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                                                       0; Mismatches
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Sequence 7 AA;
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Bibiano

Focht MSS,

peptide #8.

(first entry)

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The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABB81511 to ABB81529 and their homologues, which are referred collectively as Harli peptides (I). (I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harlil peptide casays by replacing NTP with the peptide in such an assay. The Harlil peptide says by replacing NTP with the peptide in such an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnostics disease, Down's syndrome, neuroectodermal tumours, astrocytomas, glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides
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Claim 1; Page 29; 53pp; English.
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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nootropic; neuroprotective; cell death; tissue necrosis; NTP; neural thread protein; neurodegenerative disorder; Alzheimer's disease.
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                                                 Preventing and/or inhibiting cell death and/or tissue necrosis in tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment oneural thread proteins (NTP).
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100.0%; Pred. No. 1.8e+06;
ive 0; Mismatches 0; Indels
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peptide of the invention
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                                                   Nootropic; neuroprotective; cell death; tissue necrosis; NTP;
neural thread protein; neurodegenerative disorder; Alzheimer's disease.
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                thread protein peptide region #4.
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                                                                                                             Unidentified
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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
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Noctropic; neuroprotective; cell death; tissue necrosis; NTP;
neural thread protein; neurodegenerative disorder; Alzheimer's disease.
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                                                                                                                                                                                                                                                       Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP).
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                                                                                                                          16-MAY-2002; 2002WO-CA000712.
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                                                                                                                                                                                                                                                              Nootropic; neuroprotective; cell death; tissue necrosis; NTP;
neural thread protein; neurodegenerative disorder; Alzheimer's disease.
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     Length 7;
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     100.0%; Score 21; DB 6; I
100.0%; Pred. No. 1.8e+06;
ive 0; Mismatches 0;
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100.0%; Pred. No. 1.8e+06;
ive 0; Mismatches 0;
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                                                                                                                                                                                                                                    Neural thread protein peptide region #9.
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                                                                                                                                                      ABJ19419 standard; peptide; 7 AA.
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                  Similarity 100.
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      Query Match
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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of
                                                                                                                   45; 60pp; English.
                                                                        (NTP)
                                                                 neural thread proteins
                                                                                                                                                                                                                                                                                                                      Sequence 7 AA;
                                                                                                                 Claim 2; Page
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ö 100.0%; Score 21; DB 6; Length 7; 100.0%; Pred. No. 1.8e+06; 0; Indels Mismatches ; 0 Conservative Local Similarity 4 1 HARL Query Match Best Loca Matches 8 셤

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ABB81537 standard; peptide; 8 AA. 02-SEP-2002 ABB81537; ABB81537

Neural thread protein (NTP) peptide #27

Neural thread protein; NTP; Harlil peptide; Alzheimer's disease; Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma; hypoxia; ischaemia; cerebral infarction.

Homo sapiens.

WO200234915-A2

02-MAY-2002

25-OCT-2001; 2001WO-US042813.

27-OCT-2000; 2000US-00697590.

(NYMO-) NYMOX PHARM CORP.

Focht MSS, Bibiano R; Averback P, Fitzpatrick J,

WPI; 2002-507998/54.

New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing these diseases

Claim 3; Page 30; 53pp; English.

The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABBB1511 to ABBB1529 and their homologues, which are referred collectively as Harli peptides (I). (I) have neuroprotective, noctropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harli peptide sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harlii peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlii peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnostics.

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disease, Down's syndrome, neuroectodermal tumours, astrocytomas, galloblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these diseases. The present sequence represents a specifically claimed
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                                                                                                   100.0%; Score 21; DB 5; I 100.0%; Pred. No. 1.8e+06;
                                                                                                                           Mismatches
                                                    peptide from the present invention
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                                                                                                                                                                                                                                      AA022380 standard; peptide; 8
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                                                                          Sequence 8 AA;
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protease cleavage site motifs using a mixture-library. (BETH-) BETH ISRAEL DEACONESS MEDICAL CENT 08-NOV-2001; 2001WO-US046777. 08-NOV-2000; 2000US-0246815P. Rapid determination of based oriented peptide Purk BE, Cantley LC; WPI; 2002-519316/55 WO200238796-A2. Homo sapiens. 16-MAY-2002.

The invention relates to a method for determining an amino acid sequence motif for a cleavage site of a protease. The method comprises contacting the protease with a peptide library containing degenerate residues which allow for cleavage of a substrate by the protease, allowing the protease to cleave peptides which the degenerate peptide library having a cleavage site for the protease to form a population of cleaved peptides, and determining an amino acid sequence motif for the cleavage site of the protease. The protease of the method is a matrix metalloproteinase, or a protease. The protease of the method is a matrix and allopyroteinase, or a protease is a lethal factor of B. anthracis, pla and Yopy proteases of the invention is selected from a protease of pathogenic organisms, cathegein family protease, tumour necrosis factor-alpha converting enzyme (TACE), calpains, caspases, beta-site amyloid precursor protein cleaving enzyme (BACE, beta-secretase), presenting, membrane-type serine proteases, furin and other proprotein convertases, proteasome components and

Example 1; Page 39; 126pp; English.

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The present invention describes a polypeptide (I) comprising a component selected from: (a) a polypeptide epitope having any of the 503 fully defined sequences of 8-13 amino acids (SEQ ID No:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having functional similarity to any of (a)-(c); or (b) a nolypeptide having functional polypeptide of (a)-(l) (I) has virucide and cytostatic activities, and can be used in vaccines. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of viral infections, cancers and tumours. The present sequence is used in the exemplification of the present invention.
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                                                                                                                                               epitope, epitope cluster, virucide, cytostatic, vaccine, viral infection, cancer, tumour, human, PRAME.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
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100.0%; Pred. No. 1.8e+06;
tive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Liu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human PRAME epitope SEQ ID NO:390.
                                                                                                               Human PRAME epitope SEQ ID NO:396
ADM73137 standard; peptide; 8 AA.
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Best Local Similarity 100...
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Synthetic.
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                                                                                                                                                                                                                            Synthetic.
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                                       ADM73137;
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proteases affecting the blood clotting cascade. The protease inhibitors for the invention are useful to treat diseases, including pathogenic infections, cancer, and inflammatory diseases. This sequence represents a peptide sequence relating to the protease cleavage site motifs of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nootropic, neuroprotective, cell death, tissue necrosis, NTP, neural thread protein, neurodegenerative disorder, Alzhelmer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzhelmer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP).
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                                                                                                                                                     100.0%; Score 21; DB 5; Length 8; 100.0%; Pred. No. 1.8e+06;
                                                                                                                                                                                        0; Indels
                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Neural thread protein peptide region #31.
                                                                                                                                                                                                                                                                                                                                                                 ABJ19441 standard; peptide; 8 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 2; Page 45; 60pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                             27-MAR-2003 (first entry)
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                                                                                                                                                                                            4; Conservative
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Best Local Similarity
                                                                                                                                                     Query Match
Best Local Similarity
Matches 4; Conserv
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                                                                                                                   Sequence 8 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unidentified
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                                                                               invention
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Gaps

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RESULT 27 ADM73137

Matches

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Selecting and/or producing a T cell epitope useful in a vaccine comprises subjecting a precursor peptide or polypeptide to the action of a 208 proteasome to determine the location of the C-terminus.
  Selecting and/or producing a T cell epitope useful in a vaccine comprises
                                                                                                                                 The present invention describes a method of producing T cell epitopes, involving subjecting a precursor peptide to the action of a 208 proceasome, in order to locate the C-terminus of said epitope. This can be used in the production of vaccines, which can then be used to provoke a T cell response in the treatment of diseases such as cancer and infections. The present sequence is a peptide described in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes a method of producing T cell epitopes, involving subjecting a precursor peptide to the action of a 208 proteasome, in order to locate the C-terminus of said epitope. This can be used in the production of vaccines, which can then be used to provoke a T cell response in the treatment of diseases such as cancer and infections The present sequence is a peptide described in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Vaccine; immune response; T cell response; epitope; proteasome; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                    subjecting a precursor peptide or polypeptide to the action of a 205 proteasome to determine the location of the C-terminus.
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                                                                                                                                                                                                                                                                                                                                                         Length 9;
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Pred. No. 1.8e+06;
                                                                                                                                                                                                                                                                                                                                                                                                    Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRAME derived HLA-A*0201 binding peptide SEQ ID NO: 120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ossendorp F, Offringa R, Melief CJM, Kessler JH;
                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 21; DB 4; L. 100.0%; Pred. No. 1.8e+06; tive 0; Mismatches 0;
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                                                                                          Disclosure, Page 43, 102pp, English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure, Page 62; 102pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAG99478 standard; peptide; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
4; Conserve
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HARL 6
                                                                                                                                                                                                                                                                                                              Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                             1 HARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 9 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAG99478;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAG99478
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                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention describes a polypeptide (I) comprising a component defined sequences of \theta-13 amino acids (SEQ ID NO:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having functional similarity to any of (a), (c); or (e) a nucleic acid encoding the polypeptide of (a)-(d). (I) has virucide and cytostatic activities, and can be used in vaccines. The methods and compositions of the present invention are useful for the diagnosts and/or treatment of viral infections, cancers and tumours. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                         New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           response; T cell response; epitope; proteasome; cancer;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRAME derived HLA-A*0201 binding peptide SEQ ID NO: 70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kessler JH;
                                                                                                                                                                                                                       Liu Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UYLE-) RIJKSUNIV LEIDEN.
(SCIS-) SCI SEED CAPITAL INVESTMENTS BV.
                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; SEQ ID NO 390; 357pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Melief CJM,
                                                                                                                                                                                                                       Liu L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAG99428 standard; peptide; 9 AA.
                                                                                      05-SEP-2003; 2003WO-US027706
                                                                                                                                 06-SEP-2002; 2002US-0409123P.
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                                                                                                                                                                                                                       Simard JJL, Diamond DC,
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                                                                                                                                                                            (MANN-) MANNKIND CORP
                                                                                                                                                                                                                                                              WPI; 2004-315564/29
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Best Local Similarity
Matches 4; Conserv
WO2004022709-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaccine; immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 8 AA;
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                                           18-MAR-2004
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Human PRAME epitope SEQ ID NO:393
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9 AA;
                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
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                                                                                                                    18-MAR-2004.
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                                                                          Synthetic.
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                                                                                                                                                                                    epitope, epitope cluster, virucide, cytostatic, vaccine, viral infection, cancer, tumour, human, PRAME.
                                                                                                                                                                                                                                                                                                                                                                                                        New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
Gaps
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Mismatches
                                                                                                                                                                                                                                                                                                                                                               Liu Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID NO 395; 357pp; English.
                                                                                                                                                               Human PRAME epitope SEQ ID NO:395.
                                                                                              ADM73136 standard; peptide; 9 AA.
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                                                                                                                                                                                                                                                                                                                   06-SEP-2002; 2002US-0409123P
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                                                                                                                                         03-JUN-2004 (first entry)
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Conservative
                                                                                                                                                                                                                                                                                                                                         (MANN-) MANNKIND CORP
                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-315564/29
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Best Local Similarity
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                    1 HARL 4
                                          HARL 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 9 AA;
                                                                                                                                                                                                                     Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                        18-MAR-2004
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Matches
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epitope; epitope cluster; virucide; cytostatic; vaccine; viral infection; cancer; tumour; human; PRAME.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; SEQ ID NO 393; 357pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Liu L,
                                                                                                                                                                                                                                                                                                                                                                                             05-SEP-2003; 2003WO-US027706.
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The present invention describes a polypeptide (I) comprising a component selected from: (a) a polypeptide epitope having any of the 503 fully defined sequences of 8-33 amino acids (SEQ ID NO:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having functional similarity to any of (a), (c); or (e) a nucleic acid encoding the polypeptide of (a) - (d), (1) has virucide and cytostatic activities, and can be used in vaccines. The methods and compositions of the present invention are useful for the disgnosts and/or trearment of viral infections, cancers and tumours. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            epitope; epitope cluster; virucide; cytostatic; vaccine; viral infection; cancer; tumour; human; PRAME.
                                                                                                                                 New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral
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                                                                          Liu Z;
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                                                                                                                                                                                          Claim 1; SEQ ID NO 388; 357pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human PRAME epitope SEQ ID NO:391
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                                                                          Liu L,
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               06-SEP-2002; 2002US-0409123P.
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                                                                         Simard JJL, Diamond DC,
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                                           (MANN-) MANNKIND CORP
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                                                                                                     WPI; 2004-315564/29.
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                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 9 AA;
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             The present invention describes a polypeptide (I) comprising a component defined sequences of 8-33 amino acids (SEQ ID NO:108-610); (b) an epitope having any of the 503 fully defined sequences of 8-33 amino acids (SEQ ID NO:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having functional similarity to any of (a) c(c); or (e) a mucleic acid encoding the polypeptide of (a) -(d). (I) has vincide and cytostatic activities, and can be used in vaccines. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of viral infections, cancers and tumours. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes a polypeptide (I) comprising a component selected from: (a) a polypeptide epitope having any of the 503 fully defined sequences of 6-33 amino acids (SEQ ID NO:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having functional similarity to any of (a)-(c); or (e) a nucleic acid encoding the polypeptide of (a)-(d). (I) has virucide and cytostatic activities, and can be used in vaccines. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of viral infections, cancers and tumours. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     epitope; epitope cluster; virucide; cytostatic; vaccine; viral infection; cancer; tumour; human; PRAME.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRAME epitope SEQ ID NO:397.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADM73138 standard; peptide; 9 AA.
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                                                                                                                                                                                                                                                Sequence 9 AA;
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ADM73138
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Sequence 9 AA;

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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional protein, a variant protein having desired immunological and functional properties comprising one or more variant sequences comprising an amino acid substitution of a position of the first immunogenic content to the parent protein. The method comprises generating, from a parent protein, a variant protein having desired immunological and functional properties, the desired immunological property is reduced or enhanced immunogenicity. The immunogenic sequence or property is reduced or enhanced immunogenicity. The immunogenic sequence of selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen comprises a function that predicts antigen that predicts class I or class II MHC agretopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more computational protein design algorithm is used to assess the affinity of said variant protein for one or more receptor computational protein design algorithm is used to assess the affinity of said variant protein for one or more receptor computational protein design algorithm is used to assess the affinity of said variant protein design algorithm is used to assess the affinity of said variant protein design algorithm is used to assess the affinity of said variant protein design algorithm is used to assess the affinity of said variant protein design algorithm is computational protein design algorithm is used the variant protein to a patient. The method further comprises experimentally generating the variant protein to a patient. The method is useful for generating a
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                                               Gaps
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                                                                                                                                                                                                                                                                                                                                                                                            Human CNTF class II MHC-binding less immunogenic variant #4.
Length 9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                          immunogenic; antigen presenting cell; APC;
antigen processing claavage site; class I MHC agretope;
class II MHC agretope; antibody epitope; CNTF;
ciliary neurotrophic factor.
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100.0%; Score 21; DB 8; I
100.0%; Pred. No. 1.8e+06;
                                           Mismatches
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                                                                                                                                                                                                                                                      ADR23835 standard; peptide; 9 AA.
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                                                                                                                                                                                                                                                                                                                                               21-OCT-2004 (first entry)
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                                             Conservative
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  Query Match
Best Local Similarity
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                                             Matches
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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional protein, a variant protein having desired immunological and functional properties comprising generating one or more variant sequences comprising can amino acid substitution of a position of the first immunogenic can equence in the parent protein. The method comprises generating, from a parent protein having desired immunological and cuptake by antigen presenting cals (APCB). The desired immunological property is reduced or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts comprises a function that predicts comprises a function of filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein algorithm comprises a scoring function with two or more cramped and selected from the list: van der Waals, hydrogen bonding, centernal protein design algorithm is used to assess the stability of computational protein design algorithm is used to assess the stability of
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variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human CNTF class II MHC-binding less immunogenic variant #139.
                                                                                                                                                         Length 9;
                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ımmunogenic; antigen presenting cell; APC;
antigen processing cleavage site; class I MHC agretope;
class II MHC agretope; antibody epitope; CNTF;
ciliary neurotrophic factor.
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                                                                                                                                                      100.0%; Score 21; DB 8; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                 ADR23970 standard; peptide; 9 AA.
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                                                                                                                                                                                                    4; Conservative
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                                                                                                                                                                               Similarity
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                                                                                                              Sequence 9 AA;
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                                                                                                                                                         Query Match
Best Local 8
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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional protein, a variant protein naving desired immunological and functional an amino acid substitution of a position of the first immunogenic sequence in the parent protein. The method comprises generating, from a sequence in the parent protein. The method comprises generating, from a sequence in the parent protein having desired immunological and functional properties, the desired immunological property is ended or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The agretope, a class II MHC agretope, and an antibody epitope. The processing cleavage sites, a class I MHC agretope, and that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts class I or class II MHC agretopes. The immunogenicity
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said variant protein. The computational protein design algorithm is used to assess the affinity of said variant protein for one or more receptor or ligand molecules. The computational protein design algorithm is PDA (RTM) technology. The method further comprises experimentally generating the variant protein, recovering the variant protein, and administering the variant protein to a patient. The method is useful for generating a variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).
                                                                                                                                                                                                                                                                                                                                     Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               class II MHC-binding less immunogenic variant #129.
                                                                                                                                                                                                                                                                                      100.0%; Score 21; DB 8; Length 9; 100.0%; Pred. No. 1.8e+06;
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                                                                                                                                                                                                                                                                                                                                   0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADR23960 standard; peptide; 9 AA.
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                                                                                                                                                                                                                                                                                                                                   4; Conservative
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                                                                                                                                                                                                                                                                                                        Local Similarity
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HARL 8
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                                                                                                                                                                                                                                             Sequence 9 AA;
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                                                                           electrostation, solvation, and secondary structure propendity. The computational protein design algorithm is used to assess the stability of said variant protein design algorithm is used to assess the affinity of said variant protein for one or more receptor or ligand molecules. The computational protein design algorithm is PDA or ligand molecules. The computational protein design algorithm is PDA (RTM) technology. The method further comprises experimentally generating the variant protein, recovering the variant protein, and administering the variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).
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                   comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more terms selected from the list: van der Waals, hydrogen bonding,
  The immunogenicity filter
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                                                                                                                                                                                                                                                                                                                                                                                                    Length 9;
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                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 21; DB 8; L. 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0;
  filter comprises a matrix method calculation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADR23872 standard; peptide; 9 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ciliary neurotrophic factor.
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Best Local Similarity 100.
Matches 4; Conservative
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                                                                                                                                                                                                                                                                                                                                                         Sequence 9 AA;
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property is reduced or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen cleavage sites. The immunogenicity filter comprises a function that predicts antigen comprises a matrix method calculation. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a matrix method calculation. The computational comprises a scoring function with two or more computational algorithm comprises a scoring function with two or more terms selected from the list: van der Waals, hydrogen bonding, clearcastatics, solvation, and secondary structure propensity. The computational protein design algorithm is used to assess the affinity of said variant protein. The computational protein design algorithm is used to assess the affinity of said variant protein design algorithm is DDA (RTW) technology. The method further comprises experimentally generating the variant protein in ecovering the variant protein, and administering the variant protein with altered immunogenicity, preferably for identifying contained protein with altered immunogenicity, of a protein contains that increase or decrease the immunogenicity of a protein contained by affecting antigen uptake. The present sequence represents a class II MC. MHC-binding peptide from human ciliary neurotrophic factor (CNTF).
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100.0%; Score 21; DB 8; Length 9; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels Conservative Local Similarity 1 HARL 4 œ Sequence 9 AA; Query Match Best Loc Matches

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Gapa ;

> ADR23974 standard; peptide; 9 AA. ADR23974; RESULT 40 ADR23974 à 셤

Human CNTF class II MHC-binding less immunogenic variant #143. (first entry) 21-OCT-2004

immunogenic; antigen presenting cell; APC; antigen processing cleavage site; class I MHC agretope; class II MHC agretope; antibody epitope; CNTF; ciliary neurotrophic factor.

Homo sapiens.

WO2004063963-A2.

29-JUL-2004.

08-JAN-2004; 2004WO-US000491.

08-JAN-2003; 2003US-00339788.

(XENC-) XENCOR

Chirino AJ, Dahiyat BI,

Generating, from a parent protein, a variant protein having desired immunological and functional properties, comprises generating one or mor variant sequences with an amino acid substitution in the parent protein. WPI; 2004-571511/55.

Marshall SA;

Desjarlais JR,

Example 9; Page 65; 69pp; English

The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional

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properties comprising generating one or more variant sequences comprising an amino acid substitution of a position of the first immunogenic sequence in the parent protein. The method comprises generating, from a parent protein. The method comprises generating, from a cuptake by antique presenting cells (APCB). The desired immunological and tunctional property is cells (APCB). The desired immunological and property is reduced or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agrecope, and an antibody epitope. The immunogenic sequence is menopenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The semple for more computational protein design algorithm is used to assess the stability of said variant protein. The computational protein design algorithm is used to assess the affinity of said variant protein in the computational protein design algorithm is protein. Lechnology. The method further comprises experimentally generating the variant protein to a patient. The method is useful for generating the variant protein with altered immunogenity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotroposicity of a protein.
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antigen processing cleavage site; class I MHC agretope;
class II MHC agretope; antibody epitope; CNTF;
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100.0%; Pred. No. 1.8e+06;
tive 0; Mismatches 0;
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Generating, from a parent protein, a variant protein having desired immunological and functional properties, comprises generating one or more variant sequences with an amino acid substitution in the parent protein.

Marshall SA;

Desjarlais JR,

Dahiyat BI,

Chirino AJ,

WPI; 2004-571511/55.

The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional properties comprising generating one or more variant sequences comprising an amino acid substitution of a position of the first immunogenic an amino acid substitution of a position of the first immunogenic properties, the desired immunological and functional properties, the desired immunological property is enhanced uptake by antigen presenting cells (APCS). The desired immunological or property is reduced or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen that predicts clasvage sites. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a social function with two or more terms selected from the list: van der Waals, hydrogen bonding.

Comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more computational protein design algorithm is used to assess the affinity of said variant protein for one or more receptor or ligand molecules. The computational protein design algorithm is used to assess the affinity of said variant protein, recovering the variant protein, and administering the variant protein, recovering the variant protein, and administering considering the variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity, of a protein con by affecting antigen uptake. The method is useful for generating a class II method further some protein receptor the variant protein with altered immunogenicity, preferably for variant sequences with an amino acid substitution in the parent protein. Human CNTF class II MHC-binding less immunogenic variant #138. immunogenic; antigen presenting cell; APC; antigen processing cleavage site; class I MHC agretope; class II MHC agretope; antibody epitope; CNTF; ciliary neurotrophic factor. 100.0%; Score 21; DB 8; I 100.0%; Pred. No. 1.8e+06; 0; Mismatches Example 8; Page 62; 69pp; English. ADR23969 standard; peptide; 9 AA. 08-JAN-2004; 2004WO-US000491. 08-JAN-2003; 2003US-00339788 (first entry) Conservative Query Match Best Local Similarity Matches 4; Conserv 1 HARL 4 5 HARL 8 WO2004063963-A2. (XENC-) XENCOR Sequence 9 AA; Homo sapiens. 21-OCT-2004 29-JUL-2004. ADR23969; RESULT 42 #X#X99999999999999999999999999 . 연 ઠે

The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional protein, a variant protein having desired immunological and functional comprising generating one or more variant sequences comprising an amino acid substitution of a position of the first immunogenic content protein, a variant protein. The method comprises generating, from a parent protein having desired immunological and functional properties, the desired immunological property is enhanced uptake by antigen presenting cells (APCB). The desired immunological compressed or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts antigen comprises a function that predicts class I MHC agretopes. The immunogenicity filter comprises a function that predicts class I we class I MHC agretopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational comprises a scoring function with two or more computational algorithm comprises a scoring function with two or more computational protein design algorithm is used to assess the affinity of said variant protein design algorithm is used to assess the affinity of said variant protein design algorithm is broad or more receptor con I ligand molecules. The computational protein design algorithm is a variant protein for one or more receptor con I ligand molecules. The computational protein design algorithm is a variant protein for mark form. I may be an advantance and a protein design algorithm is a variant protein for mark form. (RTW) technology. The method further comprises experimentally generating the variant protein, recovering the variant protein, and administering the variant protein to a patient. The method is useful for generating a variant protein with altered immunogenicity, preferably for identifying amoffications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF). Human CNTF class II MHC-binding less immunogenic variant #145. 100.0%; Score 21; DB 8; Length 9; 100.0%; Pred. No. 1.8e+06; Live 0; Mismatches 0; Indels immunogenic; antigen presenting cell; APC; antigen processing cleavage site; class I MHC agretope; class II MHC agretope; antibody epitope; CNTF; ciliary neurotrophic factor. Example 9; Page 65; 69pp; English. ADR23976 standard; peptide; 9 AA. (first entry) 4; Conservative Local Similarity 1 HARL 4 HARL 8 WO2004063963-A2. Sequence 9 AA; 21-OCT-2004 29-JUL-2004 ADR23976; Query Match Matches RESULT 43 ADR23976 ઠે ö by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CMTF). Gaps .; 0 Length 9; 0; Indels

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Gaps

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Homo sapiens.
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antigen processing claavage site; class I MHC agretope;
class II MHC agretope; antibody epitope; CNTF;
ciliary neurotrophic factor.
                                                                                               Marshall SA;
                                                                                               Desjarlais JR,
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08-JAN-2004; 2004WO-US000491.
                               08-JAN-2003; 2003US-00339788
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Best Local Similarity
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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional protein, a variant protein naving desired immunological and functional properties comprising generating one or more variant sequences comprising an amino acid substitution of a position of the first immunogenic comprising generating protein. The method comprises generating, from a parent protein, a variant protein having desired immunological and functional properties, the desired immunological and functional property is reduced or enhanneced immunogenic stry. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, a class II MHC agretope, and an antibody epitope. The cimmunogenic stry filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts of the predicts class I or class II MHC agretopes. The immunogenicity filter comprises a marrix method calculation. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more terms selected from the list; van der Maals, hydrogen bonding, computation; solvation, and secondary structure propensity. The computation; the same protein design algorithm is used to assess the affinity of said variant protein design algorithm is velocity of the variant protein, the computational protein design algorithm is PDA (RTM) technology. The method further comprise experimentally generating the variant protein to a patient. The method is useful for generating a variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting subjection between the immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity, preferably for identified in the variant protein but human cillary neurotrophic fac
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Marshall SA;
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100.0%; Pred. No. 1.8e+06;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Desjarlais JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 8; Page 61; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADR23887 standard; peptide; 9 AA
                                                                                                                                                                         08-JAN-2004; 2004WO-US000491
                                                                                                                                                                                                                                                                 08-JAN-2003; 2003US-00339788
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Best Local Similarity 100....
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Chirino AJ, Dahiyat BI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-571511/55.
WO2004063963-A2
                                                                                                                                                                                                                                                                                                                                                   (XENC-) XENCOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 HARL
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class I MHC agretope;

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Generating, from a parent protein, a variant protein having desired immunological and functional properties, comprises generating one or more variant sequences with an amino acid substitution in the parent protein.
     immunogenic; antigen presenting cell; APC; antigen processing cleavage site; class I WHC class II WHC agretope; antibody epitope; CNTF;
                                                                                                                                                                                                  Example 8; Page 62; 69pp; English.
                                                                                         08-JAN-2004; 2004WO-US000491.
                                                                                                        08-JAN-2003; 2003US-00339788
                              ciliary neurotrophic factor.
                                                                                                                                     Chirino AJ, Dahiyat BI,
                                                                                                                                                      WPI; 2004-571511/55.
                                                           WO2004063963-A2.
                                                                                                                       (XENC-) XENCOR
                                            Homo sapiens
                                                                          29-JUL-2004.
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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional apportatios comprising generating one or more variant sequences comprising an amino acid substitution of a postion of the first immunogenic properties comprising one or more variant sequences comprising aguence in the parent protein. The method comprises generating, from a parent protein. The method comprises generating, from a parent protein having desired immunological and functional properties, the desired immunological property is reduced or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more computational protein design algorithm is used to assess the stability of said variant protein. The computational protein for one or more receptor or ligand molecules. The computational protein for one or more receptor or ligand molecules. The computational protein design algorithm is used to assess the affinity of said variant protein for one or more receptor or ligand molecules. The computational protein design algorithm is the variant protein to a patient. The method is useful for generating the variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class I
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Sequence 9 AA;

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Gaps
                               ö
 100.0%; Score 21; DB 8; Length 9; 100.0%; Pred. No. 1.8e+06;
                            0; Indels
                              Mismatches
                            ö
                              4; Conservative
Query Match
Best Local Similarity
Matches 4; Conserv
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1 HARL 4

ADR23956 standard; peptide; 9 AA. ADR23956 ID ADR

RESULT 46

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Human CNTF class II MHC-binding less immunogenic variant #125.
                        immunogenic; antigen presenting cell; APC;
antigen processing cleavage site; class I MHC agretope;
class II MHC agretope; antibody epitope; CNTF;
cillary neurotrophic factor.
          (first entry)
          21-OCT-2004
   ADR23956;
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Homo sapiens.

WO2004063963-A2.

29-JUL-2004.

08-JAN-2004; 2004WO-US000491.

Marshall SA;

Desjarlais JR,

08-JAN-2003; 2003US-00339788

(XENC-) XENCOR

Marshall SA; Desjarlais JR, Dahiyat BI, Chirino AJ,

WPI; 2004-571511/55.

one or more Generating, from a parent protein, a variant protein having desired immunological and functional properties, comprises generating one or mor variant sequences with an amino acid substitution in the parent protein.

Example 8; Page 64; 69pp; English.

The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional properties comprising one or more variant sequences comprising an amino acid substitution of a postition of the first immunogenic sequence in the parent protein. The method comprises generating, from a parent protein, a variant protein having desired immunological and functional properties, the desired immunological property is enhanced comprises immunogenic sequence by antigen presenting cells (APCs). The desired immunological comprises by antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenic sequence comprises II MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts antigen comprises a matrix method calculation. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more content of the predict of the list; wan der Waals, Mydrogen bonding, where the computational content of the computation chain and computational content of the computation chain and computation chain computation chain computation chain computational content of the computational content of the computation chain computation chain computation chain computation chain computation chain content of the computational content of the computation chain computation chain content of the computational content of the computation chain co electrostatics, solvation, and secondary structure propensity. The computational protein design algorithm is used to assess the stability of said variant protein design algorithm is used to assess the affinity of said variant protein for one or more receptor or ligand molecules. The computational protein for one or more receptor (RTM) technology. The method further comprises experimentally generating the variant protein, recovering the variant protein, and administering a the variant protein to a patient. The method is useful for generating a variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).

; 0 Indels Query Match 100.0%; Score 21; DB 8; L Best Local Similarity 100.0%; Pred. No. 1.8e+06; Matches 4; Conservative 0; Mismatches 0; Sequence 9 AA;

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Gaps

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Generating, from a parent protein, a variant protein having desired immunological and functional properties, comprises generating one or more variant sequences with an amino acid substitution in the parent protein.
                                                                  Human CNTF class II MHC-binding less immunogenic variant #126.
                                                                                    immunogenic; antigen presenting cell; APC;
antigen processing cleavage site; class I MHC agretope;
class II MHC agretope; antibody epitope; CNTF;
ciliary neurotrophic factor.
                                                                                                                                                                                                                                   Desjarlais JR, Marshall SA;
                                                                                                                                                                                                                                                                                                        Example 8; Page 64; 69pp; English.
               ADR23957 standard; peptide; 9 AA.
                                                                                                                                                                                  08-JAN-2004; 2004WO-US000491.
                                                                                                                                                                                                   08-JAN-2003; 2003US-00339788.
                                                  21-OCT-2004 (first entry)
                                                                                                                                                                                                                                     Chirino AJ, Dahiyat BI,
                                                                                                                                                                                                                                                      WPI; 2004-571511/55.
                                                                                                                                                WO2004063963-A2.
                                                                                                                                                                                                                    (XENC-) XENCOR.
                                                                                                                              Homo sapiens.
                                                                                                                                                                 29-JUL-2004.
                                ADR23957;
        ADR23957
RESULT
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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional protein, a variant protein naving desired immunological and a maino acid substitution of a position of the first immunogenic comprising an amino acid substitution of a position of the first immunogenic from a maino acid substitution of a position of the first immunogenic, from a parent protein. The method comprises generating, from a parent protein having desired immunological and functional property is reduced or enhanced immunological property is reduced or enhanced immunogenic tor. The desired immunological or property is reduced or enhanced immunogenic tor. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenic try filter comprises a function that predicts antipody epitope. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more terms selected from the list: van der Waals, hydrogen bonding, electrostatics, solvation, and secondary structure propensity. The computational protein design algorithm is used to assess the stability of said variant protein design algorithm is used to assess the affinity of said variant protein design algorithm is potein design algorithm is used to assess the affinity of said variant protein design algorithm is used to assess the affinity of said variant protein design algorithm is used. (RTM) technology. The method further comprises experimentally generating the variant protein variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II

Sequence 9 AA;

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                                                                                                                                                                                                                                                                                                                                                                                immunological and functional properties, comprises generating one or more variant sequences with an amino acid substitution in the parent protein.
                   Gaps
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0
                                                                                                                                                         Human CNTF class II MHC-binding less immunogenic variant #60.
Length 9;
                  Indels
                                                                                                                                                                          immunogenic; antigen presenting cell; APC; antigen processing cleavage site; class I MHC agretope; class II MHC agretope; antibody epitope; CNTF; ciliary neurotrophic factor.
                                                                                                                                                                                                                                                                                                                                   Marshall SA;
100.0%; Score 21; DB 8; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                   Desjarlais JR,
                                                                                                                                                                                                                                                                                                                                                                                                            Example 8; Page 63; 69pp; English
                                                                                                   ADR23891 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                               08-JAN-2004; 2004WO-US000491.
                                                                                                                                                                                                                                                                                                08-JAN-2003; 2003US-00339788
                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                   Chirino AJ, Dahiyat BI,
                   4; Conservative
                                                                                                                                                                                                                                                                                                                                                      WPI; 2004-571511/55.
Query Match
Best Local Similarity
                                                                                                                                                                                                                                          WO2004063963-A2.
                                     1 HARL 4
                                                                                                                                                                                                                                                                                                                  (XENC-) XENCOR.
                                                       HARL
                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                       21-OCT-2004
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                                                                                                                      ADR23891;
                   Matches
                                                                                  RESULT 48
                                                                                            ADR23891
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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional and properties comprising an amino acid substitution of a postition of the first immunogenic comprising sequence in the parent protein. The method comprises generating, from a sequence in the parent protein. The method comprises generating, from a sequence in the parent protein. The method comprises generating, from a functional property is reduced or chalanced immunological property is endicated or chalanced immunological property is reduced or chalanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen that predicts class I MHC agretope. The immunogenicity filter comprises a function that predicts antigen that predicts class I or class II MHC agretopes. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more than selected from the list; van der Waals, hydrogen bonding, man antibody epitope. computational protein design algorithm is used to assess the stability of computational protein design algorithm is used to assess the stability of assess the affairty of said variant protein design algorithm is used to assess the affairty of said variant protein for one or more receptor or ligand molecules. The computational protein design algorithm is PDA (RTM) technology. The method further comprises experimentally generating the variant protein, and administering the variant protein to a patient. The method is useful for generating a variant protein with altered immunogenicity, preferably for identifying

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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional properties comprising generating one or more variant sequences comprising an amino acid substitution of a postition of the first immunogenic an amino acid substitution of a postition of the first immunogenic parent protein, a variant protein having desired immunological and functional properties, the desired immunological property is enhanced the property is reduced or enhanced immunogenic property is enhanced comprised immunogenic sequence or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, a class II MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function that predicts antigen comprises a function that predicts of a function that predicts of a function that predicts of a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more cerms selected from the list: van der Waals, hydrogen bonding, cherms selected from the list: van der Waals, hydrogen bonding, computational protein design algorithm is used to assess the stability of said variant protein. The computational protein design algorithm is used
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    decrease the immunogenicity of a protein
                        by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).
                                                                                                                                                                         Gaps
                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human CNTF class II MHC-binding less immunogenic variant #160.
                                                                                                                        100.0%; Score 21; DB 8; Length 9; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 immunogenic; antigen presenting cell; APC; antigen antigen processing cleavage site; class I MHC agretope; class II MHC agretope; antibody epitope; CNTF; ciliary neurotrophic factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Marshall SA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 9; Page 66; 69pp; English.
modifications that increase or de
by affecting antigen uptake. The
                                                                                                                                                                                                                                                                                                                                                             ADR23991 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-JAN-2004; 2004WO-US000491.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chirino AJ, Dahiyat BI,
                                                                                                                                                                    4; Conservative
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                                                                                                                                                                                                            1 HARL 4
                                                                                                                                            Local Similarity
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                                                                                   Sequence 9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                      ADR23991;
                                                                                                                          Query Match
                                                                                                                                                                    Matches
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The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional protein, a variant protein having desired immunological and functional comprising generating one or more variant sequences comprising an amino acid substitution of a position of the first immunogenic sequence in the parent protein. The method comprises generating, from a parent protein, a variant protein having desired immunological and functional properties, the desired immunological property is enhanced upractional property is reduced or enhanced immunogenicity. The immunogenic sequence is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites and the immunogenicity filter comprises a function that predicts antigen comprises a matrix method calculation. The immunogenicity filter
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to assess the affinity of said variant protein for one or more receptor or ilgand molecules. The computational protein design algorithm is PDA (RTM) technology. The method further compurises experimentally generating the variant protein, recovering the variant protein, and administering the variant protein to a patient. The method is useful for generating a variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).
                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human CNTF class II MHC-binding less immunogenic variant #8
                                                                                                                                                                                                                                                Length 9;
                                                                                                                                                                                                                                                                                    0; Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immunogenic, antigen presenting cell; APC;
antigen processing cleavage site; class I MHC agretope;
class II MHC agretope; antibody epitope; CNTF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Marshall SA;
                                                                                                                                                                                                                                              100.0%; Score 21; DB 8; I
100.0%; Pred. No. 1.8e+06;
ive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADR23839 standard, peptide, 9 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ciliary neurotrophic factor.
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                                                                                                                                                                                                                                                                                      4; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2004-571511/55.
                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                        Sequence 9 AA;
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                                                                                                                                                                                                                                              Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADR23839;
                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 50
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protein design algorithm comprises a scoring function with two or more terms selected from the list: van der Waals, hydrogen bonding, electrostatics, solvation, and secondary structure propensity. The computational protein design algorithm is used to assess the stability of said variant protein. The computational protein design algorithm is used to assess the affinity of said variant protein design algorithm is used to assess the fainity of said variant protein design algorithm is used to assess the fainity of said variant protein design algorithm is used to assess the affinity of said variant protein design algorithm is PDA (RTM) technology. The method further comprises experimentally generating the variant protein, recovering the variant protein, and administering the variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).
The computational
       a function that predicts antibody epitopes.
   888888888888888888
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Sequence 9 AA;

Gaps ; 0 Length 9; Indels 100.0%; Score 21; DB 8; Lv 100.0%; Pred. No. 1.8e+06; No. 1.8e+06; Conservative Local Similarity 1 HARL 4 5 HARL 8 Query Match Matches g ò

RESULT 51 ADR23840

Human CNTF class II MHC-binding less immunogenic variant #9. ADR23840 standard; peptide; 9 AA. (first entry) 21-OCT-2004 ADR23840;

immunogenic; antigen presenting cell; APC; antigen processing cleavage site; class I MHC agretope; class II MHC agretope; antibody epitope; CNTF; ciliary neurotrophic factor.

Homo sapiens.

WO2004063963-A2.

08-JAN-2004; 2004WO-US000491.

08-JAN-2003; 2003US-00339788

(XENC-) XENCOR

Marshall SA; Desjarlais JR, BI, Chirino AJ, Dahiyat

Generating, from a parent protein, a variant protein having desired immunological and functional properties, comprises generating one or more variant sequences with an amino acid substitution in the parent protein.

WPI; 2004-571511/55.

The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional properties comprising generating one or more variant sequences comprising an amino acid substitution of a position of the first immunogenic sequence in the parent protein. The method comprises generating, from a parent protein, a variant protein having desired immunological and functional properties, the desired immunological property is enhanced uptake by antigen presenting calls (APCs). The desired immunological property is reduced or enhanced immunogenicity. The immunological English. Example 8; Page 61; 69pp;

is selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen processing cleavage sites. The immunogenicity filter comprises a function processing cleavage sites. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a matrix method calculation. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational protein design algorithm comprises a scoring function with two or more cerms selected from the list: van der Mals, hydrogen bonding. The computational protein design algorithm is used to assess the stability of all variant protein. The computational protein design algorithm is used to assess the affinity of said variant protein for one or more receptor or ligand molecules. The computational protein design algorithm is PDA (RTM) technology. The method further comprises experimentally generating the variant protein to a patient. The method is useful for generating the variant protein to a patient. The method is useful for generating a variant protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II MHC-binding peptide from human ciliary neurotrophic factor (CNTF).

Sequence 9 AA;

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Gaps ö Length 9; 0; Indels 100.0%; Score 21; DB 8; I 100.0%; Pred. No. 1.8e+06; Mismatches 0 Local Similarity 100. les 4; Conservative Query Match Best Loc Matches

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RESULT 52 ADR23905

ADR23905 standard; peptide; 9 AA. (first entry) 21-OCT-2004 ADR23905;

Human CNTF class II MHC-binding less immunogenic variant #74. immunogenic; antigen presenting cell; APC; antigen processing cleavage site; class I MHC agretope; class II MHC agretope; antibody epitope; CNTF; ciliary neurotrophic factor.

Homo sapiens.

WO2004063963-A2

29-JUL-2004.

08-JAN-2004; 2004WO-US000491.

08-JAN-2003; 2003US-00339788

(XENC-) XENCOR

Marshall SA; Desjarlais JR, Dahiyat BI, Chirino AJ,

WPI; 2004-571511/55.

Generating, from a parent protein, a variant protein having desired immunological and functional properties, comprises generating one or more variant sequences with an amino acid substitution in the parent protein.

Example 8; Page 63; 69pp; English.

The invention relates to a novel method for generating, from a parent protein, a variant protein having desired immunological and functional properties comprising one or more variant sequences comprising

Disclosure; Page 52; 102pp; English.

an amino acid substitution of a position of the first immunogenic 100.0%; Score 21; DB 8; Length 9; 100.0%; Pred. No. 1.8e+06; ive 0; Mismatches 0; Indels PRAME derived HLA-A*0201 binding peptide SEQ ID NO: 94. (UYLE-) RIJKSUNIV LEIDEN. (SCIS-) SCI SEED CAPITAL INVESTMENTS BV. AAG99452 standard, peptide; 10 AA. 21-JAN-2000; 2000EP-00200242. 21-JAN-2000; 2000EP-00200242. (first entry) Conservative Local Similarity 4 HARL Sequence 9 AA; EP1118860-A1. Unidentified 01-OCT-2001 25-JUL-2001 infection. AAG99452; Query Match Best Loca Matches RESULT 53 AAG99452 %\$GGGGGGGGGGGGGGGGGGGGGGG ઠે g

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The parent protein. The method comprises generating, from a parent protein, a variant protein having desired immunological and functional properties, the dealred immunological property is enhanced uptake by antigen presenting calls (APCS). The desired immunological and uptake by antigen presenting calls (APCS). The desired immunological captures by antigen presenting cals (APCS). The immunogenic sequence or enhanced immunogenicity. The immunogenic sequence of selected from an antigen processing cleavage site, a class I MHC agretope, and an antibody epitope. The immunogenicity filter comprises a function that predicts antigen compressing cleavage sites. The immunogenicity filter comprises a nearty method calculation. The immunogenicity filter comprises a function that predicts antibody epitopes. The immunogenicity filter comprises a function that predicts antibody epitopes. The computational computational protein design algorithm for more computational protein design algorithm is used to assess the stability of said variant protein, and secondary structure propensity. The computational protein design algorithm is used to assess the affinity of said variant protein. The computational protein design algorithm is used to assess the affinity of said variant protein the computational protein design algorithm is used to assess the affinity of said variant protein in ecovering the variant protein in the altered immunogenicity, preferably for identifying the variant protein with altered immunogenicity, preferably for identifying containing protein protein with altered immunogenicity, preferably for identifying modifications that increase or decrease the immunogenicity of a protein by affecting antigen uptake. The present sequence represents a class II method is useful for generating the present sequence represents a class II method is useful for generating the present sequence represents a class II method is useful for generating the present sequence represents a class II method in the present sequence represents a clas Vaccine; immune response; T cell response; epitope; proteasome; cancer; Gaps ö Melief CJM, Kessler JH; Ossendorp F, Offringa R, WPI; 2001-427158/46.

Selecting and/or producing a T cell epitope useful in a vaccine comprises subjecting a precursor peptide or polypeptide to the action of a 205 proteasome to determine the location of the C-terminus.

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having an amino acid sequence selected from ABBB1511 to ABBB1529 and their homologues, which are referred collectively as Harlil peptides (I).

Their homologues, which are referred collectively as Harlil peptides (I).

Cativities, and can be used in peptide therapy. The Harlil peptide cativities, and can be used in peptide therapy. The Harlil peptide sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in auch an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics.

In particular, the peptides are also useful for diagnosing Alzheimer's disease, Down's syndrome, neuroectodermal tumours, astrocytomas, glioblastomas, hypoxia, isochaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these diseases. The present sequence represents a specifically claimed
                                                                                                                                                                                                                                                                                 ö
                                   The present invention describes a method of producing T cell epitopes, involving subjecting a precursor peptide to the action of a 20S proteasome, in order to locate the C-terminus of said epitope. This can be used in the production of vaccines, which can then be used to provoke a T cell response in the treatment of diseases such as cancer and infections. The present sequence is a peptide described in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a neural thread protein (NTP) peptide
                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Harlil peptide, Alzheimer's disease;
srmal tumour; astrocytoma; glioblastoma;
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                                                                                                                                                                                                                                         Length 10;
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100.0%; Pred. No. 1.7e+02;
ive 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Down's syndrome; neuroectodermal tumour;
hypoxia; ischaemia; cerebral infarction.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Neural thread protein (NTP) peptide #26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABB81536 standard; peptide; 10 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Page 30; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-OCT-2001, 2001WO-US042813.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-OCT-2000; 2000US-00697590.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neural thread protein; NTP;
Down's syndrome; neuroectode
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Best Local Similarity 100...
4; Conservative
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                                                                                                                                                                                                                                                                                                                    1 HARL 4
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RESULT 55

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ABJ19440

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The present invention describes a polypeptide (I) comprising a component selected from: (a) a polypeptide epitope having any of the 503 fully defined sequences of 8-13 amino acids (SEQ ID NO:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having functional similarity to any of (a) -(c); or (e) a mucleic acid encoding the polypeptide of (a) -(d). (I) has vinucide and cytostatic activities, and can be used in vaccines. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of viral infections, cancers and tumours. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               epitope; epitope cluster; virucide; cytostatic; vaccine; viral infection; cancer; tumour; human; PRAME.
                                                                   epitope, epitope cluster; virucide, cytostatic; vaccine, viral infection; cancer; tumour; human; PRAME.
                                                                                                                                                                                                                                                                                                                                                                                                                                         New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
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100.0%; Pred. No. 1.7e+02;
Live 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                      Liu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRAME epitope SEQ ID NO:394.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADM73135 standard; peptide; 10 AA.
                                    Human PRAME epitope SEQ ID NO:387.
                                                                                                                                                                                                                                                                                                                                                                      Liu L,
                                                                                                                                                                                                                                                           05-SEP-2003; 2003WO-US027706.
                                                                                                                                                                                                                                                                                                 06-SEP-2002; 2002US-0409123P
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 (first entry)
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Best Local Similarity
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03-JUN-2004
                                                                                                                                Homo sapiens
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ADM73135
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                          Nootropic, neuroprotective, cell death, tissue necrosis, NTP, neural thread protein, neurodegenerative disorder, Alzheimer's disease.
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                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP).
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                                                                            Length 10;
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                                                                      100.0%; Score 21; DB 5; I
100.0%; Pred. No. 1.7e+02;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                         Neural thread protein peptide region #30.
   peptide from the present invention
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                                                                                                                                                                                                                                                                                ABJ19440 standard; peptide; 10 AA.
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                                                       Query Match
Post Local Similarity 100..
4: Conservative
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Matches 4; Conserv
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                                      Sequence 10 AA;
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RESULT 54 ADM73128

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The present invention describes a polypeptide (I) comprising a component selected from: (a) a polypeptide epitope having any of the 503 fully defined sequences of 8-33 amino acids (SEQ ID NO:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having functional similarity to any of (a) -(c); or (e) a nucleic acid encoding the polypeptide of (a)-(d); (I) has virucide and cytostatic activities, and can be used in vaccines. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of viral infections, cancers and tumours. The present sequence is used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes a polypeptide (I) comprising a component defined from: (a) a polypeptide epitope having any of the 503 fully defined sequences of 8-33 amino acids (SEQ ID NO:108-610); (b) an epitope cluster comprising the polypeptide of (a); (c) a polypeptide having substantial similarity to (a) or (b); (d) a polypeptide having similarity to any of (a)-(c); or (e) a muchelc acid encoding the polypeptide of (a)-(d). (I) has vinucide and cytostatic activities, can be used in vaccines. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of viral infections, cancers and tumours. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           epitope; epitope cluster; virucide; cytostatic; vaccine; viral infection; cancer; tumour; human; PRAME.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
                                                                                                                                                                                                                                                                                Length 10;
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                                                                                                                                                                                                                                                                            100.0%; Score 21; DB 8; I
100.0%; Pred. No. 1.7e+02;
iive 0; Mismatches 0;
                                                                                                                                                                                                           exemplification of the present invention.
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 Claim 1; SEQ ID NO 389; 357pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADM73133 standard; peptide; 10 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-SEP-2003; 2003WO-US027706.
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Best Local Similarity
Matches 4; Conserv
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                                                                                                                                                                                                                                             Sequence 10 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             epitope, epitope cluster, virucide, cytostatic, vaccine, viral infection, cancer, tumour, human, PRAME.
                                                                                                                                                                       New polypeptides and encoding nucleic acids that are useful epitopes of target-associated antigens, useful for diagnosing and/or treating viral infections, cancers and tumors.
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                                                                                                                                                                                                                                                                                                                                                                                                                                     infections, cancers and tumours. The pres
exemplification of the present invention.
                                                                                                    Liu Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Liu Z;
                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 394; 357pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADM73130 standard; peptide; 10 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human PRAME epitope SEQ ID NO:389
                                                                                                    Liu L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Liu L,
05-SEP-2003, 2003WO-US027706,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-SEP-2003; 2003WO-US027706.
                                06-SEP-2002; 2002US-0409123P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-SEP-2002; 2002US-0409123P.
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                                                                                                    Simard JJL, Diamond DC,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                  (MANN-) MANNKIND CORP
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                                                                                                                                       WPI; 2004-315564/29.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 HARL 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 HARL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADM73130;
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Matches
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(first entry)

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MUC1, epithelial cell mucin; tumour; MUC1 ligand; cancer.
                                                                                                                                                                           Peptide ligand which binds to human MUC1 protein.
                                                                                            AAB31270 standard; peptide; 12
                                                                                                                                                                                                                                                             WO200077031-A2
        1 HARL
                                                                                                                                                                                                                                                                                         21-DEC-2000.
                                                                                                                                                                                                                                   Synthetic.
                                                                                                                       AAE31270;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABB81533;
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Matches
                                                                  RESULT 61
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                                                                                AAB31270
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to novel peptides (1; ADP04313-ADP04324)
which are recognized by autoantibodies (AAb) directed against human
thyroperoxidase (hTPO). (I) comprise a discontinuous epitope derived from
the discontinuous immunodominant region of hTPO, consisting of four
distinct regions that are homologous to MPO (myeloperoxidase) or CCP
(complement-control protein). (I) contain at least one of the cryptic
motifs given in ADP04325-ADP04327. The discontinuous epitope comprises
hTPO regions 353-363 (ADP04309); 377-386 (ADP04310) and 713-720
(ADP04311) of the MPO homology domain and 766-775 (ADP04312) of the CCP
homology domain. (I) are used to detect AAb, particularly for diagnosis
of autoimmune diseases (especially of the thyroid, e.g. Graves' and
antimoto diseases) or thyroid cancers. Also (I), and anti-TPO antibodies
that recognize them, are useful for treating these diseases. To
illustrate the invention, TPO mutaits were made. The present sequence is
the wild-type peptide sequence which was replaced with the ADP04328
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptides recognized by autoantibodies against human thyroperoxidase, useful for diagnosis and treatment of autoimmune diseases and thyoid cancer, also antibodies specific for them.
                                                      Gaps
                                                                                                                                                                                                                                                                                                      thyroperoxidase; hTPO; immunodominant region; MPO homology domain; myeloperoxidase homology domain; CCP homology domain; complement-control protein homology domain; autoimmune disease; thyroid disease; Graves' disease; Hashimoto disease; thyroid cancer.
                                                                                                                                                                                                                                                                                         Cytostatic, Immunosuppressive, Thyromimetic, Antithyroid, human,
                                                                                                                                                                                                                                                             Human thyroperoxidase, TPO, peptide residues 353-363, SEQ ID 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chardes T, Devauchelle G;
                        100.0%; Score 21; DB 8; Length 10; 100.0%; Pred. No. 1.7e+02;
                                                   0; Indels
                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; SEQ ID NO 1; 64pp; French.
                                                                                                                                                                               ADP04309 standard; peptide; 11 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peraldi RS, Bes C, Bresson D,
Cerutti M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CNRS ) CNRS CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-DEC-2002; 2002FR-00015657.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-DEC-2002; 2002FR-00015657.
                                                                                                                                                                                                                                   09-SEP-2004 (first entry)
                                      Best Local Similarity 100.
Matches 4; Conservative
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                                                                               1 HARL 4
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                                                                                                          HARL 7
Sequence 10 AA;
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                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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                                                                                                                                                                                                         ADP04309;
                        Query Match
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The present sequence represents a peptide ligand which binds to human MUC1 protein. MUC1 is an epithelial cell mucin, which is found on, and shed from, the surface of many tumours. MUC1 peptide ligands were isolated using a phage display technique using MUC1 tandem repeats as the target. The MUC1 tandem target repeats comprise repeats of the peptide AAB31288. The ligands are useful for detecting the presence of MUC1 in a sample, to treat or prevent cancer associated with MUC1 and to prepare associated with MUC1 and to prepare associated with MUC1. By assaying for the binding between the MUC1 ligand and MUC1 in a sample diagnosis or monitoring of cancer can be carried out. The ligands may also be used to prepare antibodies
                                                                                                                                                                                                                                                                       Novel ligands that binds to MUC1, an epithelial cell mucin, useful for diagnosing, monitoring, treating and preventing cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Neural thread protein; NTP; Harlil peptide; Alzheimer's disease;
Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Neural thread protein (NTP) peptide #23.
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                                                                                                                                                                                                                                                                                                                                                              Claim 15; Page 42; 60pp; English
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15-JUN-2000; 2000WO-CA000711.
                                                                                                           (UYHE-) UNIV HEALTH NETWORK.
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                                                                                                                                                                                                                      WPI; 2001-091388/10.
                                                                                                                                                                  Gariepy J, Yang S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 4; Conserv
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                                                    15-JUN-1999;
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Query Match
100.0%; Score 21; DB 8; Length 11;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 4; Conservative 0; Mismatches 0; Indels

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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention
                                                                                                                        Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABB81532 standard; peptide; 13 AA
                                                                                                                                                                                                         Claim 2; Page 45; 60pp; English.
                  16-MAY-2001; 2001US-0290971P.
                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                     WPI; 2003-129234/12.
                                             (NYMO-) NYMOX CORP.
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                              1 HARL 4
                                                                                                                                                                                                                                                                                                                                       Sequence 12 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         these diseases
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                                                                                                                                                                                                                                                                                                                                                                                               4;
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                                                                          Averback PA;
                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                         having an amino acid sequence selected from the present the present invention and amino acid sequence selected from ABBB1511 to ABBB1529 and their homologues, which are referred collectively as Harili peptides (I).

(I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harili peptide sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harili peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harili peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics in particular, the peptides are also useful for diagnosing Alzheimer's disease, Down's syndrome, neuroectodermal tumours, astrocytomas.
                                                                                                                                                                                                                                                          New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nootropic; neuroprotective; cell death; tissue necrosis; NTP; neural thread protein; neurodegenerative disorder; Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these diseases. The present sequence represents a specifically claimed peptide from the present invention
                                                                                                                                                                                                                                                                                                                                                                   The present invention describes a neural thread protein (NTP) peptide
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                                                                                                                                                                                                     Focht MSS, Bibiano R;
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100.0%; Pred. No. 2.1e+02;
iive 0; Mismatches 0;
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hypoxia; ischaemia; cerebral infarction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABJ19437 standard; peptide; 12 AA.
                                                                                                                                                                                                                                                                                                                                    Claim 3; Page 30; 53pp; English.
                                                                                                                 25-OCT-2001; 2001WO-US042813.
                                                                                                                                              27-OCT-2000; 2000US-00697590.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-MAY-2002; 2002WO-CA000712.
                                                                                                                                                                                                     Fitzpatrick J, Averback P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                         (NYMO-) NYMOX PHARM CORP
                                                                                                                                                                                                                                 WPI; 2002-507998/54.
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                                                                                                                                                                                                                                                                                                         these diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 12 AA;
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                                                         WO200234915-A2
                              Homo sapiens
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                                                                                      02-MAY-2002
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Length 12;

100.0%; Score 21; DB 6; Length 12 100.0%; Pred. No. 2.1e+02; ive 0; Mismatches 0; Indels

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New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABB81511 to ABB81529 and
                                                                                                                           Neural thread protein; NTP; Harlil peptide; Alzheimer's disease;
Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bibiano
                                                                                                                                                                                                              hypoxia; ischaemia; cerebral infarction.
                                                            Neural thread protein (NTP) peptide #22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 3; Page 29; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-OCT-2001; 2001WO-US042813.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-OCT-2000; 2000US-00697590
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(first entry)
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The present invention relates to human nucleic acids containing single nucleotide polymorphisms (SNPs). These can be used in forensic and paternity tests, and to aid in the treatment of diseases associated with aberrant protein expression, including cancer, amyloidosis, diabetes, Alzheimer's disease, Down's syndrome, oedema, lupus (SLE), vasculitis, glomerulonephritis, haemolytic anaemia, thrombocytopaenia, arthritis, meningitis, muscular disorders, dementia, neurological diseases, tuberous sclerosis, male infertility, hypercalcaemia, blood pressure disorders, autoimmunity. The present sequence is a peptiide encoded by a polymorphism-containing oligonucleotide fragment of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isolated human polynucleotides containing single nucleotide polymorphisms, useful for the treatment and diagnosis of e.g. cancer,
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                                                                                                                                                                                                                                                                                                                                                                      Human, single nucleotide polymorphism, SNP, paternity test; forensic test; aberrant protein expression.
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    Indels
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      Mismatches
                                                                                                                                                                                                                                                                                                                         Human protein fragment SEQ ID NO: 992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 388; 475pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAM00412 standard; peptide; 14 AA.
                                                                                                                                                                                                 AAM00444 standard; peptide; 14 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JAN-2001; 2001WO-US000322
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                                                                                                                                                                                                                                                                                    (first entry)
      4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              infection and diabetes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Leach
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                                                                                    HARL 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200151670-A2
                                              1 HARL
                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
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                                                                                                                                                                                                                                                                                    01-OCT-2001
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                                                                                                                                                                                                                                         AAM00444;
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        Matches
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                                                                                                                                                       RESULT 66
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                                                                                                                                                                             AAM00444
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP
their homologues, which are referred collectively as Harlil peptides (I) (I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harlil peptide sequences can be used as analogues for NTP in therapeutic or diagnostic assays by replacing NTP with the peptide in such an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnosing Alzheimer's disease, Down's syndrome, neuroectodermal tumours, astrocytomas, glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nootropic; neuroprotective; cell death; tissue necrosis; NTP;
neural thread protein; neurodegenerative disorder; Alzhelmer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 13;
                                                                                                                                                                                                                                                                                                                                                                        Length 13;
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                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 21; DB 5; I
100.0%; Pred. No. 2.2e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Neural thread protein peptide region #26.
                                                                                                                                                                                                                                                                                      peptide from the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABJ19436 standard; peptide; 13 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 2; Page 45; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-MAY-2002; 2002WO-CA000712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-MAY-2001; 2001US-0290971P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptide of the invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (NYMO-) NYMOX CORP.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 HARL 4
                                                                                                                                                                                                                                                                                                                                Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 13 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200292115-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-MAR-2003
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                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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Bibiano R;

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The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABBB151 to ABBB1529 and their homologues, which are referred collectively as Harlil peptides and criticis, and can be used in peptide therapy. The Harlil peptide activities, and can be used in peptide therapy. The Harlil peptide sequences can be used as analogues for NTP in therapeutic or diagnostic sequences can be used in peptide in such an assay. The Harlil peptide are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding therapeutic assay. Threfore, the Harlil peptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics. In particular, the peptides are also useful for diagnosing Alzhelmer's disease, Down's syndrome, neuroectodermal tumours, astrocycomas, calbobatemas, hypoxica, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these also useful as present sequence represents a specifically claimed
                                                                                                                                                                                                                             New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Neural thread protein; NTP-peptide; AD7C-NTP; surgical excision; transplantation; grafting; chemotherapy; immunotherapy; vaccination; ablation; cryotherapy; laser therapy; photocherapy; gene therapy; radiation; tumour; hyperplasia; hypertrophy; overgrowth of tissue; malformation of tissue; tonsillary hypertrophy; prostatic hyperplasia; cosmetic modification; vascular disease; atherosclerosis; arteriosclerosis; heemorrhoid; varicose vein; inflammatory disease; autoimmune disease; metabolic disease; traumatic disease; physical injury; nutritional deficiency disease; infectious disease; amyloid disease; travase disease; congenital malformation; enzyme deficiency disease; polsoning; intoxication; environmental disease; radiation disease; intoxication; environmental disease; radiation disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               endocrine disease; degenerative disease; mechanical disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 21; DB 5; Length 14; Similarity 100.0%; Pred. No. 2.4e+02; 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human neural thread protein AD7C-NTP, peptide fragment #8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide from the present invention
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                                                                                                                                                                                                                                                                                                                                                              Claim 3; Page 30; 53pp; English.
                        27-OCT-2000; 2000US-00697590.
                                                                                                                            Fitzpatrick J, Averback P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                        (NYMO-) NYMOX PHARM CORP.
                                                                                                                                                                            WPI; 2002-507998/54.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 14 AA;
                                                                                                                                                                                                                                                                                                              these diseases.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to human nucleic acids containing single nucleotide polymorphisms (SNPs). These can be used in forensic and paternity tests, and to aid in the treatment of diseases associated with aberrant protein expression, including cancer, amyloidosis, diabetes, Alzheimer's disease, Down's syndrome, oedema, lupus (SLB), vasculitis, glomerulonephritis, haemolytic anaemia, thrombocytopaenia, arthritis, meningitis, muscular disorders, dementia, neurological diseases, tuberous seteoporosis, male infertility, hypercalcaemia, blood pressure disorders, seteoporosis, pathogenic infections, hypercholesterolaemia, obesity or autoimmunity. The present sequence is a peptide encoded by a polymorphism-containing oligonucleotide fragment of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isolated human polynucleotides containing single nucleotide polymorphisms, useful for the treatment and diagnosis of e.g. cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Neural thread protein; NTP; Harlil peptide; Alzheimer's disease;
Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma;
hypoxia; ischaemia; cerebral infarction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                   Human; single nucleotide polymorphism; SNP; paternity test;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 21; DB 4; Length 14; 100.0%; Pred. No. 2.4e+02; ive 0; Mismatches 0; Indels
                                                                                                 forensic test; aberrant protein expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Neural thread protein (NTP) peptide #24.
                  Human protein fragment SEQ ID NO: 960.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 379; 475pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABB81534 standard; peptide; 14 AA.
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                                                                                                                                                                                                                                                                                                        05-JAN-2001; 2001WO-US000322
                                                                                                                                                                                                                                                                                                                                                         07-JAN-2000; 2000US-0174962P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polymorphisms, useful for infection and diabetes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shimkets RA, Leach MD;
                                                                                                                                                                                                                                                                                                                                                                                                            (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-451871/48.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAH89529.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 14 AA;
                                                                                                                                                                                                    WO200151670-A2
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                                                                                                                                                    Homo sapiens
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21-NOV-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 71
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                            The invention describes an NTP-peptide (I) comprising at least one amino acid sequence corresponding to part of the amino acid sequence of a neural thread protein, AD7C-NTP. The invention provides a method of treating a condition requiring removal or destruction of cells of a mammal comprising administered to the mammal before, during or after mammal comprising administered to the mammal before, during or after surgical excision, transplantation, graftling, chemotherapy, immunotherapy, vaccination, thermal or electrical ablation, cryotherapy, immunotherapy, phototherapy, gene therapy and/or radiation. The method is useful for treatment of benign or malignant tumour; hyperplasia, useful for treatment of benign or malignant tumour; hyperplasia, bypertrophy or overgrowth of tissue, virally, bacterially or parasitically altered tissue, malformation of tissue selected from lung, breast, stomach, pancreas, prosette, bladder, bone, ovary, skin, kidney, breast, stomach, pararthyroid, thyroid, there, spinal, cord, muscle, connective tissue, adrenal, parathyroid, thyroid, theres, testis, putultary, topical and its coverings, spinal cord, muscle, connective tensies, mouth and lyamph nodes and lymphoid system; tonsilary, throat, conseils mouth and lyamph nodes and lymphoid system; tonsilary wascular disease (atherosclerosis or arteriosclerosis); haemosthoids;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease. This is the amino acid sequence of a human neural thread protein AD7C-NTP peptide fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      deficiency disease; poisoning; intoxication; environmental disease; radiation disease; endocrine disease; degenerative disease and mechanical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               varicose veins; inflammatory disease; autoimmune disease; metabolic disease; hereditary/genetic disease; traumatic disease; physical injury; nutritional deficiency disease; infectious disease; amyloid disease; fibrosis disease; storage disease; congenital malformation; enzyme
                                                                                                                                                         Novel peptides similar in amino acid sequence to neural thread proteins (NTP), useful for treating unwanted cellular proliferations such as malignant tumors and prostatic hyperplasia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nootropic; neuroprotective; cell death; tissue necrosis; NTP; neural thread protein; neurodegenerative disorder; Alzhelmer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 21; DB 6; Length 14; 100.0%; Pred. No. 2.4e+02; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Neural thread protein peptide region #28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABJ19438 standard; peptide; 14 AA.
                                                                                                                                                                                                                     Claim 3; Page 16; 78pp; English
               24-MAY-2002; 2002WO-CA000759.
                                            25-MAY-2001; 2001US-0293156P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-MAR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4; Conservative
                                                                                                                                 WPI; 2003-041406/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                         CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 HARL 4
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                                                                       (NYMO-) NYMOX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unidentified.
                                                                                                      Averback PA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABJ19438;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosts in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (WTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Papillomavirus; PV; infection; cell proliferation; B2; peptidomimetic; B1; antiviral; virucide; cytoetatic; antiproliferative; dermatological; preneoplastic lesion; neoplastic lesion; cutaneous lesion; wart; epidermodysplasia verruciformis; anorectal carcinoma.
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                                                                                                                                                                                                                                                                                                               Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 2; Page 45; 60pp; English.
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16-MAY-2002; 2002WO-CA000712.
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assays by replacing NTP with the peptide in such an assay. The Harilipeptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harilipeptides are useful in binding assays, protein and antibody purification, therapeutics or diagnostics in particular, the peptides are also useful for diagnosing Alzheimer's disease, Down's syndrome, neuroectodermal tumours, astrocytomas, glioblastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these diseases. The present sequence represents a specifically claimed

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sequences can be used as analogues for NTP in therapeutic or diagnostic

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The present invention describes a neural thread protein (NTP) peptide having an amino acid sequence selected from ABBB1511 to ABBB1529 and their homologues, which are referred collectively as Harlil peptides (I). (I) have neuroprotective, nootropic, vasotropic and cerebroprotective activities, and can be used in peptide therapy. The Harlil peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3; Page 30; 53pp; English.
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The present invention describes the use of a small organic compound (A) which competitively inhibits interaction of a papillomavirus (PV) E2 protein with a PV E1 protein for treating a cell infected with PV or a mammal with a PV-induced condition. (A) has antiviral, virucide, Cytostatic, antiproliferative and dermatological activities. Methods from the present invention can be used to treat PV-induced conditions including growth of PV preneoplastic and neoplastic lesions, cutaneous lesions chosen from warts and other benign cutaneous lesions, plantar varts (vervuca plantaris), common warts (vervuca planta), common warts (vervuca planta), plantal, plantar, genital warts (condyloma acuminatum) and epidermodysplasia verruciformis, laryngeal, oral, pharyngeal, oseophageal and other upper airway papilloma or vaginal, cervical, vulvar, penile and anocetal carcinoma. The E2 inhibitors may also be used to treat epithelial and internal fibropapilloms in animals. The present sequence represents a peptide sequence used in the exemplification of the present
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HARL 14 1 HARL 4

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RESULT 73 ABJ19439

Query Match Best Local Similarity

Sequence 15 AA;

peptide from the present invention

Length 15;

Neural thread protein; NTP; Harlil peptide; Alzheimer's disease; Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma; hypoxia; ischaemia; cerebral infarction. Neural thread protein (NTP) peptide #25. ABB81535 standard; peptide; 15 AA. (first entry) WO200234915-A2. Homo sapiens 02-SEP-2002 02-MAY-2002 ABB81535;

neural thread protein; neurodegenerative disorder; Alzheimer's disease.

16-MAY-2001; 2001US-0290971P. 16-MAY-2002; 2002WO-CA000712

WO200292115-A2.

21-NOV-2002.

Unidentified.

(NYMO-) NYMOX CORP.

Averback PA;

Nootropic; neuroprotective; cell death; tissue necrosis; NTP;

Neural thread protein peptide region #29.

(first entry)

27-MAR-2003

ABJ19439;

ABJ19439 standard; peptide; 15 AA.

The invention relates to a novel method for preventing and/or inhibiting cell death and/or tissue necrosis in a tissue comprising contacting the live tissue with at least one segment of neural thread proteins (NTP). The methods are composition are useful for treating a neurodegenerative disorder, such as Alzheimer's disease. This sequence represents an NTP peptide of the invention Preventing and/or inhibiting cell death and/or tissue necrosis in a tissue for treating a neurodegenerative disorder, e.g. Alzheimer's disease, by contacting the live tissue with at least one segment of neural thread proteins (NTP). Claim 2; Page 45; 60pp; English. WPI; 2003-129234/12.

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Focht MSS, Bibiano

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Length 15;

100.0%; Score 21; DB 6; L 100.0%; Pred. No. 2.6e+02; Mismatches

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Sequence 15 AA;

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ABB81530 standard; peptide; 16 AA ABB81530; ABB81530

Neural thread protein (NTP) peptide #20. (first entry) 02-SEP-2002

Neural thread protein; NTP; Harlil peptide; Alzheimer's disease; Down's syndrome; neuroectodermal tumour; astrocytoma; glioblastoma; hypoxia; ischaemia; cerebral infarction.

Homo sapiens

WO200234915-A2

02-MAY-2002

25-OCT-2001; 2001WO-US042813.

27-OCT-2000; 2000US-00697590.

(NYMO-) NYMOX PHARM CORP.

Focht MSS, Bibiano R; Fitzpatrick J, Averback P,

WPI; 2002-507998/54.

New Harlil peptide sequences of the Neural Thread Protein, useful in therapeutic assays, e.g. as targets for developing drugs for treating Alzheimer's disease, ischemia or cerebral infarction, or for diagnosing these diseases.

Claim 3; Page 29; 53pp; English.

having an amino acid sequence selected from ABBB1511 to ABBB1529 and their homologues, which are referred collectively as Harlil peptides (I) their homologues, which are referred collectively as Harlil peptides (I).

(I) have neuroprotective, noctropic, vasotropic and carebroprotective cartivities, and can be used in peptide therapy. The Harlil peptide sequences can be used as analogues for NTP in therapeutic or diagnostic sessays by replacing NTP with the peptide in such an assay. The Harlil peptides are also useful as a trap material in a diagnostic or therapeutic assay. Therefore, the Harlil peptides are useful in binding assay, protein and antibody purification, therapeutics or diagnostics.

In particular, the peptides are also useful for diagnostics.

In particular, the peptides are also useful for diagnostics.

In particular, the peptides are also useful for diagnostics.

Cliphastomas, hypoxia, ischaemia or cerebral infarction. The peptides are also useful as targets for drug development for the treatment of these diseases. The present sequence represents a specifically claimed peptide from the present invention The present invention describes a neural thread protein (NTP) peptide

Sequence 16 AA;

Gaps ö 100.0%; Score 21; DB 5; Length 16; 100.0%; Pred. No. 2.8e+02; ive 0; Mismatches 0; Indels Conservative Local Similarity Query Match Best Loc Matches

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RESULT 75

ABU02984 standard; peptide; 16 AA. ABU02984 ID ABU0 XX

ABU02984;

(first entry) 20-JAN-2003 Human neural thread protein AD7C-NTP, peptide fragment #4.

Neural thread protein; NTP-peptide; AD7C-NTP; surgical excision; transplantation; grafting; chemotherapy; immunotherapy; vaccination; ablation; cryotherapy; laser therapy; phototherapy; gene therapy; paradiation; cryotherapy; laser therapy; phototherapy; gene therapy; radiation; tumour; hyperplasia; hypertrophy; overgrowth of tissue; malformation of tissue; tonsillary hypertrophy; prostatic hyperplasia; arteriosclerosis; cosmetic modification; vascular disease; atherosclerosis; autoimmune disease; metabolic disease; traumatic disease; physical injury; nutritional deficiency disease; infectious disease; physical injury; nutritional deficiency disease; infectious disease; congenital malformation; enzyme deficiency disease; poisoning; intoxication; environmental disease; radiation disease;

Homo sapiens.

endocrine disease; degenerative disease; mechanical disease.

WO200297030-A2

05-DEC-2002

24-MAY-2002; 2002WO-CA000759.

25-MAY-2001; 2001US-0293156P.

(NYMO-) NYMOX CORP.

Averback PA;

WPI; 2003-041406/03.

Novel peptides similar in amino acid sequence to neural thread proteins (NTP), useful for treating unwanted cellular proliferations such as malignant tumors and prostatic hyperplasia.

Claim 3; Page 15; 78pp; English.

The invention describes an NPP-peptide (I) comprising at least one amino acid sequence corresponding to part of the amino acid sequence of a cueral thread protein. AD7C-MPD. The invention provides a method of treating a condition requiring removal or destruction of cells of a mammal comprising administered to the mammal a therapeutic amount of (I). The treatment is administered to the mammal before, during or after surgical excision, transplantation, grafting, chemotherapy, vaccination, thermal or electrical ablation. The method is manuchherapy, phototherapy, gene therapy and/or radiation. The method is useful for treatment of benign or malignant tumour; hyperplasia, hypertrophy or overgrowth of tissue; virally, bacterially or parasitically altered tissue; malformation of tissue selected from lung, consisting stomach, pancreas, prostate, bladder, bone, ovary, skin, kidney, sinus, colon, intestine, rectum, esophaque, heart, spleen, salivary clasue, adrenal, parathyroid, thyroid, uterus, testis, pituitary, reproductive organs, liver, hair, gall bladder, eye, ear, nose, throat, consils, mouth and lymph nodes and lymphoid system; tonsillary thyertic hyperplasia; connection to a tissue; hypertrophy; prostatic hyperplasia; connection to a tissue; hypertrophy; prostatic hyperplasia; connection to a tissue; various veins; inflammatory disease; autoimmune disease; metabolic disease; inflammatory disease; autoimmune disease; metabolic disease; hereditary/genetic disease; traumatic disease; physical injury; mutritional deficiency disease; infectious disease; amyloid disease; fibrosis disease; storage disease; congenital malformation; enzyme deficiency disease; posoning; intoxication; enriconmental disease; radiation disease; degenerative disease and mechanical disease; this is the amino acid sequence of a human neural thread protein peptide fragment

Sequence 16 AA;

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A;Cross-references: UNIPROT:Q07026; EMBL:X59554; NID:g48381; PIDN:CAA42147.1; PID:g4839
A;Experimental source: strain O17
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hypochetical protein Atu0115 [imported] - Agrobacterium tumefaciens (strain C58, Dupont)
C,Species Agrobacterium tumefaciens
C,Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004
C,Accession: AF2590
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Science 284, 2117-2233, 2001
A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
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A;Experimental source: strain C58 (Dupont)
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Cippeters: Archaeoglobus fulgidus
Cippeters: O5-Dec-1997 #sequence_revision O5-Dec-1997 #text_change O9-Jul-2004
Cipates: O5-Dec-1997 #sequence_revision O5-Dec-1997 #text_change O9-Jul-2004
Cipates: O5-Dec-1997 #sequence_revision O5-Dec-1997 #text_change O9-Jul-2004
Cipates: O5-Dec-1997
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A;Accession: AF2590
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-67 <KUR>
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                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%; Score 21; DB 2; Length 65; Best Local Similarity 100.0%; Pred. No. 1.1e+02; Matches 4; Conservative 0; Mismatches 0; Indels
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Best Local Similarity 100.0%; Pred. No. 1.1e+02;
Matches 4; Conservative 0; Mismatches 0;
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A,Gene: Atu0115
A,Map position: circular chromosome
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53 HARL 56
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A,Gene: rfbQ
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C;Species Methanobacterium thermoautotrophicum
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C;Accession: B69101
R;Smith, D.R; Doucette-Stamm, L.A; Deloughery, C; Lee, H; Dubois, J; Aldredge, T.;
Ki, S; Church, G.M.; Daniels, C.J.; Mao, J; Rice, P.; Noelling, J; Reeve, J.N.
J. Bacteriol. 179, 7135-7155, 1997
A;Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: funct
A;Reference number: A69000; MUID:98037514; PMID:9371463
A;Accession: B69101
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-59 < MTH>
A;Residues: 1-59 < MTH>
A;Residues: 1-59 < MTH>
A;Experimental source: strain Delta H
C;Genetice: MTH1750
                                                                                                                                                                                                                                      Nypothetical protein AGR C 4298 [imported] - Agrobacterium tumefaciens (strain C58, Cere C, Species: Agrobacterium tumefaciens
C, Species: Agrobacterium tumefaciens
C, Species: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
C, Accession: B97644
R, Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman, A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.; Science 294, 233-2328, 2001
A, Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tum A, Reference number: A97359; MUD:21608551; PMID:11743194
A, Scattus: preliminary
A, Rollecule type: DNA
A, Residues: 1-44 «KUR.>
A, Residues: 1-44 «KUR.>
A, Coose-references: UNIPROT:Q8U546; GB:AE007869; PIDN:AAK88107.1; PID:g15157539; GSPDB:G
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C;Species: Vibrio cholerae
A;Variety: strain 017
A;Variety: strain 017
C;Date: 12-Mar-1993 #sequence_revision 12-Mar-1993 #text_change 09-Jul-2004
C;Date: 12-Mar-1993 #sequence_revision 12-Mar-1993 #text_change 09-Jul-2004
C;Accession: S28481
R;Manhing, P.A.
A;Reference to the EMBL Data Library, May 1991
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                                ALIGNMENTS
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C;Genetics:
A;Gene: AGR C 4298
A;Map position: circular chromosome
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Matches 4; Conserv
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Best Local Similarity
Matches 4; Conserv
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A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.

A;Reference number: A82515; MUID:20365717; PMID:10910347

A;Reference number: A82515; MUID:20365717; PMID:10910347

A;Rotein For a complete list of authors see reference number A59328 below
A;Roteiner P62684

A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-80 <SIM>A;Residues: DNA
A;Residues: 1-80 <SIM>A;Residues: UNIPROT:09PDG2; GB:AE003972; GB:AE003849; NID:g9106418; PIDN:AAF842
A;Residues: 1-80 <AINA
A;Residues: Strain gasC
A;Simpson, A.J.G.; Rennach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.;
Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, Briones, M.L.; Kemper, B.L.; Kitajina, J.S.; Franca, A.J.S.
aubmitted to GenBank, June 2000
A;Authors: Perreira, M.L.; Kemper, B.L.; Kitajina, J.P.; Krieger, J.E.; Kuramae, B.E.; Laicoldo, M.A.; Madeira, A.M.B.N.; Matsukuma, A.Y.; Marcho, J.; Marchos, A;Authors: Martins, E.M.F.; Matsukuma, A.Y.; Marcho, M.; Miracca, B.C.; Miyaki, C.Y.; F.G.; Numes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, M.A.; Silva, A.N.; Salva, A.N.; A; Reference number: A59328
A;Contents: annotation
C;Genetics:
A;Genetics:
A;Contents:
A;
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C; Species: Bacillus halodurans
C; Species: Bacillus halodurans
C; Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 09-Jul-2004
C; Accession: G84144
C; Accession: G84144
A; Reference number: A83650; MuID:20512582; PMID:11058132
A; Reference number: A83650; MuID:20512582; PMID:11058132
A; Residues: preliminary
A; Residues: 1.83 <STO
A; Residues: 1.83 <STO
A; Cross-references: UNIPROT:09K5X7; GB:AP001520; GB:BA000004; NID:gl0176401; PIDN:BAB07
A; Cross-references: Uniprod: 225
C; Genetics: A; Gene: BH3959
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C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004
C;Accession: AH2622
R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClel; Karp, P.; Romero, P.; Zhang, S.
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100.0%; Pred. No. 1.4e+02;
ive 0; Mismatches 0;
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Best Local Similarity 100.
Matches 4: Conservative
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Best Local Similarity 100.
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C;Species: Xylella fastidiosa
C;Species: Als Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
C;Accession: F82684
R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cjaccession: C70501

Cjaccession: C70501

S. T., Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon, S.; Cole, S. T.; Brosch, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, S.; Connor, R.; Davies, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998

Nature 393, 537-544, 1998

Ajauhors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.

Ajauhors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.

Ajauhors: Sqares, R.; Sulston, J.E.; Taylor, R.; Puberculosis from the complete genome A; Reference number: A70500; MUID: 98295987; PMID: 9634230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:O33186; GB:Z98268; GB:AL123456; NID:g3261839; PIDN:CAB10941;
A;Experimental source: strain H37Rv
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Superfamily: chlorophyll a/b-binding protein
C;Keywords: chlorophyll; chloroplast; light-harvesting complex; photosystem II; thylakoi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chlorophyll a/b-binding protein - barley (fragment)
(Specials Hordeum vulgare (barley)
(Specials Hordeum vulgare (barley)
(Specials Hordeum vulgare)
(Specia
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                                                                                                                                                                                                                                                                                                                                                                  Species: Mycobacterium tuberculosis
Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004
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A;Experimental source: cv. Carina, leaf
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100.0%; Pred. No. 1.2e+02;
ive 0; Mismatches 0;
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A;Molecule type: mRNA
A;Residues: 1-75 <HUM>
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A;Accession: T06193
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Matches 4; Conserv
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Best Local Similarity 100.0
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Best Local Similarity
Matches 4; Conserv
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A,Gene: CESP:C54G10.1
A,Map position: 5
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C; Species: Pseudomonas aeruginosa
C; Species: Pseudomonas aeruginosa
C; Species: Dseudomonas aeruginosa
C; Species: Dseudomonas aeruginosa
C; Species: Dseudomonas aeruginosa
R; Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Br adman, S.; Yuan, Y.; Barody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, J., Lory, S.; Olson, M.V.
Nature 406, 959-964, 200
A; Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic pathot A; Reference number: A82950; MUID:20437337; PMID:10984043
A; Residues: Preliminary
A; Wolecule type: DNA
A; Residues: 1-93 <STO
A; Cross-references: UNIPROT:Q91113; GB:AE004655; GB:AE004091; NID:g9948321; PIDN:AAG0568
A; Experimental source: strain PA01
C; Genetics:
A; Genetics:
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C;Species: Agrobacterium tumefaciens
C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
C;Accession: H97404
R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman, A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.; Science 294, 2332-2328, 2001
A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tum A;Reference number: A97359; MUID:21608551; PMID:11743194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
A;Molecule type: DNA
A;Redidues: 1-85 <KUR>
A;Cross-references: UNIPROT:Q8UIC1; GB:AE007869; PIDN:AAK86193.1; PID:g15155290; GSPDB:G
                                                                                                                                                                                                                                                          A;Cross-references: UNIPROT:QBUIC1; GB:AE008688; PIDN:AAL41398.1; PID:g17738716; GSPDB:C
A;Experimental source: strain C58 (Dupont)
Science 294, 2317-2323, 2001
A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
                                                     ster, E.W.

Aritle: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens CS8.

A;Reference number: AB2577; MUID:21608550; PMID:11743193

A;Accession: AH2622

A;Acteus: preliminary

A;Molecule type: DNA

A;Residues: 1-85 <KUR>
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100.0%; Score 21; DB 2; Length 85;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 4; Conservative 0; Mismatches 0; Indels
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A,Map position: circular chromosome
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A;Gene: Atu0376
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hypotherical protein C54G10.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T20227
R;Matchlews, L.
submitted to the EMBL Data Library, June 1996
A;Reference number: 219240
A;Recession: T20227
A;Rolecule type: DNA
A;Molecule type: DNA
A;Residues: 1-93 <WIL.
A;Residues: 1-93 <WIL.
A;Residues: 1-93 <WIL.
A;Experimental source: clone C54G10
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C;Species: phage phi-C31
R;Hartley, N.M.; Murphy, G.O.; Bruton, C.J.; Chater, K.F.
R;Hartley, N.M.; Murphy, G.O.; Bruton, C.J.; Chater, K.F.
A;Reference number: S38912
A;Reference number: S38912
A;Reference number: S38916
A;Status: preliminary
A;Status: preliminary
A;Residues: 1-96 < HARA
A;Residues: 1-96 < HARA
A;Cross-references: UNIPROT:Q38025; EMBL:X76288; NID:g432610; PIDN:CAA53915.1; PID:g432
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C;Species: Rickettsia conorii
C;Species: Rickettsia conorii
C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
C;Accession: A97833
R;Ogata, H.; Audic, S.; Renesto-Audiffren, P.; Fournier, P.E.; Barbe, V.; Samson, Science 293, 2093-2094, 2001
A;Fitle: Mechanisms of Evolution in Rickettsia conorii and Rickettsia prowazekii.
A;Reference number: A97700; MUID:21442074; PMID:11557893
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100.0%; Pred. No. 1.6e+02;
:ive 0; Mismatches 0;
100.0%; Score 21; DB 2; I
100.0%; Pred. No. 1.6e+02;
iive 0; Mismatches 0;
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Length 103; 0; Indels

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A,Cross-references: UNIPROT:Q8UGL9; GB:AE007869; PIDN:AAK86826.1; PID:g15156036; GSPDB
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100.0%; Score 21; DB 2; I
Best Local Similarity 100.0%; Pred. No. 1.7e+02;
Matches 4; Conservative 0; Mismatches 0;
                                                            C,Genetics:
A,Gene: AGR C_1876
A,Map position: circular chromosome
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A;Molecule type: DNA
A;Residues: 1-103 <KUR>
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A;Gene: Atu1018
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C;Species: Neisseria meningitidis
C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
C;Accession: C81012; G81953
R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, J.A.
Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.A.;
ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M.
Science 287, 1809-1815, 2000
A;Auchors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Ve
A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58.
A;Accession: C91012
                                                       A,Molecule type: DNA
A,Residues: 1-100 <KUR>
A,Cross-references: UNIPROT:Q92GQ7; GB:AE006914; PIDN:AAL03603.1; PID:g15620185; GSPDB:G
C,Genetics:
A,Gene: RC1065
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Residues: 1-101 <TEX-
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C; Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
C; Accession: A97484
R; Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman, A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappaa, C.; Markelz, B.; Science 294, 2323-2328, 2001
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A;Experimental source: serogroup A, strain 22491
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A;Reference number: A97359; MUID:21608551; PMID:11743194
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A;Gene: NMB2058; NMA0377
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Best Local Similarity
Matches 4; Conserv
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Residues: 1-101 <PAR>
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A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-103 <KUR>
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A;Status: preliminary
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hypotherical protein Atulol8 [imported] - Agrobacterium tumefaciens (strain C58, Dupont C; Species: Agrobacterium tumefaciens
C; Species: Agrobacterium tumefaciens
C; Species: Agrobacterium tumefaciens
C; Accession: A12701
R; Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClell Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
A; Atuthors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A,Molecule type: DNA
A,Residues 1.103 «KOR»
A;Cross-references: UNIPROT:QBUGL9; GB:AEQ08688; PIDN:AAL42031.1; PID:g17739407; GSPDB:
A;Experimental source: strain C58 (Dupont)
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C; Species: Agrobacterium tumefaciens
C; Species: Agrobacterium tumefaciens
C; Species: Agrobacterium tumefaciens
C; Accession: D97412
R; Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman A; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B. Scince 294, 2323-2328, 2001
A; Title: Genome Sequence of the plant Pathogen and Biotechnology Agent Agrobacterium tu A; Reference number: A97359; MUID:21608551; PMID:11743194
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   A.Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens CSB.
A.Reference number: AB2577; MUID:21608550; PMID:11743193
A.Accession: AI2701
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Best Local Similarity 100.0%; Pred. No. 1.7e+02;
Matches 4; Conservative 0; Mismatches 0;
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Query Match 100.0%; Score 21; DB 1; Length 116; Best Local Similarity 100.0%; Pred. No. 2e+02; Matches 4; Conservative 0; Mismatches 0; Indels
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Best Local Similarity 100.
Matches 4; Conservative
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A; Residues: 1-116 <NAV>
C,Genetics:
A,Genome: chloroplast
C,Keywords: chloroplast
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HARL 38
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C;Species: chloroplast Pinus thunbergiana (Japanese black pine)
C;Species: chloroplast Pinus thunbergiana (Japanese black pine)
C;Date: 14-May-1999 #sequence_revision 14-May-1999 #text_change 09-Jul-2004
C;Accession: T07540
R;Wakasugi, T.; Tsudzuki, J.; Ito, S.; Nakashima, K.; Tsudzuki, T.; Sugiura, M.
R;Wakasugi, T.; Sugiura, M.
A;Title: Loss of all ndh genes as determined by sequencing the entire chloroplast genome
A;Reference number: Z16030; MUID:95024047; PMID:7937893
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A;Residues: 1-107 <BOY>
A;Cross-references: UNIPROT:P13657; GB:X15873; NID:g45448; PIDN:CAA33882.1; PID:g45449
                                                                                                                                        C;Species: Escherichia coli
C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 09-Jul-2004
C;Datession: S04786
R;Boyd, A.C.; Archer, J.A.K.; Sherratt, D.J.
Mol. Gen. Genet. 217, 488-498, 1989
A;Title: Characterization of the Col81 mobilization region and its protein products.
A;Reference number: JQ0389; WUID:89364735; PMID:2671664
A;Accession: S04786
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                                                                                                                         mobilization protein mobC - Escherichia coli plasmid ColK
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100.0%; Pred. No. 1.8e+02;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                 Status: not compared with conceptual translation: Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                      A;Status: not compared with concept
A;Molecule type: DNA
A;Remidues: 1-106 <BOY>
A;Cross-references: UNIPROT:052992
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity
Matches 4; Conserv
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C;Species: Pseudomonas aeruginosa
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
C;Accession: S61400; S3154
R;Hoefte, M.; Dong, Q.; Kourambas, S.; Krishnapillai, V.; Sherratt, D.; Mergeay, M.
Mol. Microbiol. 14, 1011-1020, 1994
A;Title: The sss gene product, which affects pyoverdin production in Pseudomonas aerugi
A;Reference number: S61400; MUID:95231283; PMID:7715441
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A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Molecule type: Data Data Bubl:X78478; NID:9468712; PIDN:CAA55224.1; PID:9468
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, March 1994
Submitted to the EMBL Data Library, March 1994
A;Description: The EMBL Data Library, March 1994
A;Description: The sas gene product which affects pyoverdin production in Pseudomonas a
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C;Species: tomato yellow leaf curl virus
C;Species: tomato yellow leaf curl virus
C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 09-Jul-2004
C;Accession: B40779
R;Navot, N.; Pichersky, E.; Zeidan, M.; Zamir, D.; Czosnek, H.
Virology 185, 151-161, 1991
A;Title: Tomato yellow leaf curl virus: a whitefly-transmitted geminivirus with a singl
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C;Superfamily: tomato yellow leaf curl virus V2 protein
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A;Residues: 1-108 <HOF>
A;Cross-references: EMBL:X78478; NID:g468712; PIDN:CAA55224.1; PID:g468713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diaminopimelate epimerase (EC 5.1.1.7) - Pseudomonas aeruginosa (fragment)
                                                                                           Gaps
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100.0%; Score 21; DB 2; I
100.0%; Pred. No. 1.8e+02;
ive 0; Mismatches 0;
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C,Superfamily: diaminopimelate epimerase
C,Keywords: isomerase; lysine biosynthesis
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Gaps

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Oncogene tyrosine protein kinase receptor - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 09-Jul-2004
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 09-Jul-2004
C;Accession: 177386
R;Coulier, F.; Kumar, R.; Ernst, M.; Klein, R.; Martin-Zanca, D.; Barbacid, M.
Mol. Cell. Biol. 10, 4202-4210, 1990
A;Title: Human trk oncogenes activated by point mutation, in-frame deletion, and duplic A;Reference number: 157506; MUID:90318386; PMID:1695324
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C;Genetics:
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A;Authors: Sqares, R.; Sulston, J.B.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Authors: Deciphering the biology of Mycobacterium tuberculosis from the complete genome A;Reference number: A70500; MulD:98295987; PMID:9634230

A;Accession: E70718

A;Retsidues: preliminary; nucleic acid sequence not shown; translation not shown

A;Residues: 1-119 <COL>
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A;Experimental source: strain H37Rv
C;Genetics:
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C.Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 09-Jul-2004,
C.Accession: E70718
                                          Gaps
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         Pred. No. 2e+02;
Mismatches 0;
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A;Molecule type: mRNA
A;Residues: 1-118 <RES>
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100.0%; Pre
      Similarity 100. 4; Conservative
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Matches 4; Conservative
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         Best Local
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                                                                                                                                                                               cell growth regulatory protein ChpBK - Bscherichia coli (strain K-12)
N;Alternate names: pemk-like protein 2
C;Species: Bscheritchia coli
C;Apecies: Bscheritchia coli
C;Accession: 049339; 856451; D6534
R;Masuda, Y.; Myakawa, K.; Nishimura, Y.; Ohtsubo, E.
A;Title: ChpA and ChpB, Escherichia coli chromosomal homologs of the pem locus responsib A;Reference number: A49339; MulD:94042847; PMID:8226627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 iCross-references: EMBL:U14003; NID:g1263172; PIDN:AAA97122.1; FID:g537067; NOte: the nucleotide sequence was submitted to the EMBL Data Library, August 1994; Note: the nucleotide sequence was submitted to the EMBL Data Library, August 1994; P. Balattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.; Ccience 277, 1453-1462, 1997; Cience 277, 1453-1462, 1997; P. Brance Sequence of Escherichia coli K-12.

The complete genome sequence of Escherichia coli K-12.

FREEERICE Number: A64720; MUID:97426617; PMID:9278503
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Title: Analysis of the Escherichia coli genome VI: DNA sequence of the region from 92. Reference number: S56314; MUID:95334362; PMID:7610040
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Cross-references: GB:AE000494; GB:U00096; NID:g1790670; PIDN:AAC77182.1; PID:g1790672;
Experimental source: strain K-12, substrain MG1655
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A,Reference number: 157506; MUID:90318386; PMID:1695324
A,Accession: 157506
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C;Species: Homo sapiens (man)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: 157506
R;Coulier, F.; Kumar, R.; Ernst, M.; Klein, R.; Martin-Zanca, D.; Barbacid, M.Mol. Cell. Biol. 10, 4202-4210, 1990
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Best Local Similarity 100.
Matches 4; Conservative
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Residues: 1-116 <BUR>
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C; Keywords: DNA binding
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Genetics

RESULT 26

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A; Molecule type: DNA
A; Molecule type: DNA
A; Readdues: 1-121 - KRIE.
A; Readdues: 1-121 - KRIE.
A; Cross-references: UNIPROT: P87133; EMBL: AL035248; PIDN: CAA22851.1; GSPDB: GN00066; SPDB
A; Experimental source: strain 972h-; cosmid c167
A; Experimental source: strain 972h-; cosmid c167
B; Skalton, J.; Churcher, C.M.; Barrell, B.G.; Rajandream, M.A.; Wood, V.
Submitted to the EMBL Data Library, May 1997
A; Reference number: 221819
                                                                                                                                                                                                                                                                                                                      A;Accession: T38952
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Rolecule type: DNA
A;Rolecule type: SPAC57A7.02c
A;Rolecule type: SPAC57A7.02c; SPAC167.06c
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HARL 20
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                                                                                                                                                                                                                                                                                                                  A;Cossereferences: UNIPROT:Q92U12; GB:AL591985; PIDN:CAC49731.1; PID:g15141218; GSPDB:GA;Cossereferences: UNIPROT:Q92U12; GB:AL591985; PIDN:CAC49731.1; PID:g15141218; GSPDB:GA;Experimental source: strain 1021, megaplasmid pSymB R;Galibert, F:; Finan, T.M.; Long, S.R.; Puhler, A.; Abola, P.; Ampe, F.; Barloy-Hubler, Pela, D.; Chain, P.; Cowie, A.; Davis, R.W.; Dreano, S.; Federspiel, N.A.; Fisher, R.F.; Science 293, 668-672, 2001
A;Authors: Kahn, D.; Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp, C.; Lelaure, A;Title: The composite genome of the legume symbiont Sinorhizobium meliloti.
A;Contents: annotation
A;Contents: annotation
A;Genetics:
A;Genetic
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C;Species: Mycobacterium leprae
R;Cole, S.T.; Eiglmeier, K.; Parkhill, J.; James, K.D.; Thomson, N.R.; Wheeler, P.R.; Ho
R;Cole, S.T.; Eiglmeier, K.; Parkhill, J.; James, K.D.; Thomson, N.R.; Wheeler, P.R.; Ho
R;Cole, S.T.; Eiglmeier, K.; Simon, S.; Simmonds, M.; Skelton, J.; Squares, R.; Sq
R;Cutter, S.; Seeger, K.; Simon, S.; Simmonds, M.; Skelton, J.; Squares, R.; Sq
R;Accession: E87139
A;Accession: E87139
A;Accession: E87139
A;Accession: preliminary
A;Accession: preliminary
A;Accession: L121 cSTO>
A;Cross-references: GB:AL450380; NID:g13093539; PIDN:CAC30797.1; GSPDB:GN00147
Proc. Natl. Acad. Sci. U.S.A. 98, 9889-9894, 2001
A;Title: The complete sequence of the 1,689-kb pSymB megaplasmid from the N2-fixing endd
A;Reference number: A95842; MUID:21396508; PMID:11481431
A;Accession: C96008
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 21; DB 2; Length 120; 100.0%; Pred. No. 2e+02; tive 0; Mismatches 0; Indels
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C;Superfamily: Escherichia coli ribosomal protein L18
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                 A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-120 <KUR>
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hypothetical protein NMA2047 [imported] - Neisseria meningitidis (strain Z2491 serogrous C; Species: Neisseria meningitidis (c; Species: Neisseria meningitidis (c; Species: Neisseria meningitidis (c; Species: Os-May-2000 #sequence_revision 05-May-2000 #text_change 09-Jul-2004 (c; Accession: C81775 R; Parkhill, J.; Achtman, M.; James, K.D.; Bentley, S.D.; Churcher, C.; Klee, S.R.; More N; Parkhill, J.; Achtman, M.; Jeather, S.; Moule, S.; Mungall, K.; Quail, M.A.; Rajandream. Nature 404, 502-506, 2000 A; Moule, S.; Mungall, K.; Quail, M.A.; Rajandream. A; Title: Complete DNA sequence of a serogroup A strain of Neisseria menigitidis Z2491.
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A;Status: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Rosidues: 1-122 < PAR>
A;Cross-references: UNIPROT:Q9JT10; GB:AL162758; GB:AL157959; NID:g7380672; PIDN:CAB852
A;Experimental source: serogroup A, strain Z2491
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C;Species: Mycobacterium leprae
C;Species: Mycobacterium leprae
C;Accession: T45382
R;Cole, S. T.; Flesselles, B.; Honore, N.
submitted to the EMBL Data Library, August 1997
A;Reference number: Z22966
A;Reference number: Z22966
A;Reference preliminary; translated from GB/EMBL/DDBJ
A;Reference DNA
A;Residues: L122 < COL)
A;Residues: 1-122 < COL)
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0; Indels
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Similarity 100.0%; Pred. No. 2.1e+02;
4; Conservative 0; Mismatches 0;
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   0; Mismatches
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Gaps

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Length 124; 0; Indels

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C;Species: Escherichia coli
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
C;Accession: F90822
R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001
A;Trier Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and gen A;Reference number: A99629; MUID:21156231; PMID:11258796
A;Accession: F9082
A;Accession: preliminary
A;Molecule type: DNA
A;Residues: 1-124 cHAY>
                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT;Q8X4K1; GB:BA000007; PIDN:BAB34973.1; PID:g13361014; GSPDB:
A;Experimental source: strain O157:H7, substrain RIMD 0509952
C;Genetics:
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R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001

A;Tile: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and gen A;Reference number: A99629; MUID:21156231; PMID:11258796

A;Accession: A90854

A;Molecule type: DNA
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R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G
gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001
A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and gen
A;Reference number: A99629; MUID:21156231; PMID:11258796
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A,Experimental source: strain O157:H7, substrain RIMD 0509952
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A;Experimental source: strain O157:H7, substrain RIMD 0509952
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C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   h 100.0%; Score 21; DB 2; I Similarity 100.0%; Pred. No. 2.1e+02; 4; Conservative 0; Mismatches 0;
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Best Local Similarity
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A;Molecule type: DNA
A;Residues: 1-124 <HAY>
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A;Experimental source: strain O157:H7, substrain EDL933
C;Genetics:
A;Gene: Z3320
                                                                                                                                                                                                                                                                                                                                                                             hypothetical protein NMB0438 [imported] - Neisseria meningitidis (strain MC58 serogroup C; Species: Neisseria meningitidis
C; Species: Neisseria meningitidis
C; Species: 3.1-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 09-Jul-2004
C; Accession: G81198
R; Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, J.A.Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.A.; Science 287, 1809-1815, 2000
A; Authors: Grand, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Ve A; Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58.
A; Reference number: A81000; MUID: 20175755; PMID: 10710307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Species: Bscherichia coli
C; Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C; Accession: D85843
R; Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew
iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apodaca,
Mature 409, 529-533, 2001
A; Title: Genome sequence of enterohemorrhagic Escherichia coli 0157:H7.
A; Ritle: Genome sequence of enterohemorrhagic Escherichia coli 0157:H7.
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probable tail assembly chaperone [imported] - Escherichia coli (strain O157:H7, substrai
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A;Experimental source: serogroup B, strain MC58
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                             100.0%; Score 21; DB 2; I 100.0%; Pred. No. 2.1e+02;
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C;Accession: T49512
R;Schulte, U.; Aign, V.; Hoheisel, J.; Brandt, P.; Fartmann, B.; Holland, R.; Nyakatura
submitted to the Protein Sequence Database, May 2000
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A;Residues: 1-127 <SCO>
A;Cross-references: UNIPROT:Q16911; GB:L38686; NID:g605609; PIDN:AAA65831.1; PID:g60561
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R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G.
gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 8, 11-22, 2001
A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and gen.
A;Reference number: A99629; MUID:21156231; PMID:11258796
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C;Species: Escherichia coli
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 16-Aug-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cytochrome P450 protein, CYP4H5 - Anopheles albimanus (fragment)
C;Species: Anopheles albimanus
C;Date: 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 09-Jul-2004
C;Date: 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 09-Jul-2004
C;Accession: PC2265
B;Scott, J.A.; Collins, F.H.; Feyereisen, R.
B;Cott, J.A.; Collins, F.H.; Feyereisen, R.
A;Title: Diversity of cytochrome P450 genes in the mosquito, Anopheles albimanus.
A;Reference number: PC2257; MUID:95100981; PMID:7545968
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A;Cross-references: GB:BA000007; PIDN:BAB38137.1; PID:g13364189; GSPDB:GN00154
A;Experimental source: strain O157:H7, substrain RIMD 0509952
02-Jun-2000 #sequence_revision 02-Jun-2000 #text_change 18-Aug-2000
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C;Superfamily: human cytochrome P450 CYP4B1; cytochrome P450 homology
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100.0%; Pred. No. 2.1e+02;
tive 0; Mismatches 0;
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Similarity 100.0%; Pred. No. 2.1e+02;
4; Conservative 0; Mismatches 0;
                                                                                                                                    A;Accession: T49512
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-125 <SCH>
A;Cross-references: EMBL:AL356173; GSPDB:GN00116; NCS
A;Cross-references: BAC clone B14D6; strain OR74A
C;Genetics:
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C;Superfamily: Thioredoxin; thioredoxin homology
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A,Map position: 6
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HARL 44
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A;Status: preliminary
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A;Residues: 1-127 <H
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A;Recession: B90909
A;Retus: pre-eliminary
A;Roceule type: DNA
A;Residues: 1-124 cHMY>
A;Roceule type: DNA
A;Residues: 1-124 cHMY>
Cross-references: UNIPROT:Q8XAH6; GB:BA000007; PIDN:BAB35665.1; PID:g13361708; GSPDB:GCCGGenetics:
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A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-124 <STO>
A;Cross-references: UNIPROT:Q8X5B6; GB:AE005174; NID:g12514215; PIDN:AAG55504.1; GSPDB:G
A;Experimental source: strain O157:H7, substrain EDL933
A;Genetics:
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C;Species: Escherichia coli
C;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
C;Accession: B90909
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                                    100.0%; Score 21; DB 2; L
100.0%; Pred. No. 2.1e+02;
Mismatches 0;
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100.0%; Pred. No. 2.1e+02;
ive 0; Mismatches 0;
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Best Local Similarity
Matches 4; Conser
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  A;Gene: ECs1981
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hypotherical protein At2g27180 [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Species: O2-Eeb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
C;Accession: G84669
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.;
M.; Kao, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, L.
Nature 402, 761-768, 1999
A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A;Reference number: A84420; MUID:20083487; PMID:10617197
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: UNIPROT:Q9SHT0; GB:AE002093; NID:g4646220; PIDN:AAD26886.1; GSPDB:C
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hypothetical protein 133 - Japanese black pine)

hypothetical protein 133 - Japanese black pine)

C;Species: 14-May-1999 #sequence_revision 14-May-1999 #text_change 09-Jul-2004

C;Accession: T07498

R;Wakasugi, T.; Tsudzuki, J.; Ito, S.; Nakashima, K.; Tsudzuki, T.; Sugiura, M.

Proc. Natl. Acad. Sci. U.S.A. 91, 974-9798, 1994

A;Title: Loss of all ndh genes as determined by sequencing the entire chloroplast genom

A;Reference number: 216030; MUID:95024047; PMID:7937893
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                               CACCESSION: A04481
Risucciliffe, Jug.
Risucciliffe, Jug.
Cold Spring Harb. Symp. Quant. Biol. 43, 77-90, 1979
Cold Spring Harb. Symp. Quant. Biol. 43, 77-90, 1979
A;Title: Complete nucleotide sequence of the Escherichia coli plasmid pBR322.
A;Reference number: A90923; MUID:80002802; PMID:383387
A;Accession: A04481
A;Molecule type: DNA
A;Residues: 1-132 <SUT>
C;Genetics:
31-Dec-1980 #sequence_revision 31-Dec-1980 #text_change 09-Jul-2004
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C;Superfamily: Bscherichia coli plasmid pBR322 hypothetical 15.3K protein
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C;Superfamily: Japanese black pine chloroplast hypothetical protein 133
C;Keywords: chloroplast
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llarity 100.0%; Pred. No. 2.2e+02;
Conservative 0; Mismatches 0;
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100.0%; Pred. No. 2.2e+02;
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Best Local Similarity
Matches 4; Conserv
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A; Residues: 1-132 <STO>
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32 HARL 35
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A;Map position: 2
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Matches
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C;Species: Aeropyrum pernix
C;Species: Aeropyrum pernix
C;Accession: G72460
R;Kawarabayasi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Haikawa, Y.; Jin-no, K.; Takahawa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Jin-no, K.; Takahana Res. 6, 83-101, 1999
A;Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aeropyr
A;Reference number: A72450; MUID:99310339; PMID:10382966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A Status: preliminary
A; Molecule type: DNA
A; Molecule type: Molecule
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A;Experimental source: strain Kl
C;Genetics:
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R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew llar, L.; Grobbeck, B.J.; Davis, N.W.; Lim, A.; Dimalanta, B.; Potamousis, K.; Apodaca, Nature 409, 529-533, 2001
A;Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A;Reference number: A85480; MUID:21074935; PMID:11206551
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C;Species: Escherichia coli
C;Date: 16-Peb-2001 #sequence_revision 16-Peb-2001 #text_change 16-Aug-2004
                                                                                                               Gaps
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                                       Length 127;
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                                   100.0%; Score 21; DB 2; I
100.0%; Pred. No. 2.1e+02;
ive 0; Mismatches 0;
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Query Match
Best Local Similarity 100.
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Best Local Similarity 100...
4; Conservative
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A,Molecule type: DNA
A,Residues: 1-129 <KAW>
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Best Local Similarity
Matches 4; Conserv
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A;Status: prelimina:
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R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguch Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata, Dank Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium An. A;Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AF1925
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-139 <KUR>
A;Accosser-references: UNIPROT:Q8YY98; GB:BA000019; PIDN:BAB72910.1; PID:g17130299; GSPDB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Escherichia coli
C;Date: 16-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C;Accession: D85681
R;Perran N. T; Plunkett III, G; Burland, V.; Mau, B; Glasner, J.D.; Rose, D.J.; Mayhe:
Iller, L.; Grotbeck, B.J.; Davis, N.W.; Lim, A.; Dimalanta, B.; Potamousis, K.; Apodaca
Nature 409, 529-533, 2001
A;Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A;Reference number: A85480; MUID:21074935; PMID:11206551
A;Status: preliminary
A;Accession: D85681
A;Ressidues: 1-140 <STO>
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C;Genetics:
A;Gene: Z1812
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C; Species: Agrobacterium tumefaciens
C; Species: Agrobacterium tumefaciens
C; Species: Agrobacterium tumefaciens
C; Spaces: In-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004
C; Accession: AB3828
R; Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClel ; Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
A; Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
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A;Molecule type: DNA
A;Rodlecule type: LIAO «KUR»
A;Cross-references: UNIPROT:Q8UDS2; GB:AE008688; PIDN:AAL43040.1; PID:g17740505; GSPDB:
A;Experimental source: strain C58 (Dupont)
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A;Reference number: AB2577; MUID:21608550; PMID:11743193
A;Accession: AB2828
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Best Local Similarity 100.0%; Pred. No. 2.3e+02;
Matches 4; Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 HARL 4
                                                                                                                                                                                                                                                                                                                                                                                                          A;Gene: alr0953
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                                                                                                                                                                                                                                                                                                                                 B1177 C1 147 protein - Mycobacterium leprae
C; Species: Mycobacterium leprae
C; Date: 19-Mar-1997 #sequence_revision 25-Apr-1997 #text_change 09-Jul-2004
C; Accession: S72720
R; Smith, D. R., Robison, K.
R; Smith, D. R., Robison, K.
A; Reference number: S72694
A; Accession: S72720
A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-133 <SMI>A; Residues: 1-133 <SMI>A; Coss-references: UNIPROT: Q49636; EMBL: U00011; NID: g466807; PIDN: AAA17084.1; PID: g4668
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CiSpecies: Pseudomonas aeruginosa
CiSpecies: Pseudomonas aeruginosa
CiDate: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
CiAccession: B83475
Ristover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Br Ristover, C.K.; Pham, X.O.; Erwin, A.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, J. Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic patho A;Reference number: A82950; MUID:20437337; PMID:10984043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:Q913Z1; GB:AE004565; GB:AE004091; NID:g9947294; PIDN:AAG0474
A;Experimental source: strain PAO1
C;Genetics:
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C;Species: Nostoc sp. PCC 7120
A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120
C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
C;Accession: AP1925
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                       100.0%; Score 21; DB 2; Length 133; 100.0%; Pred. No. 2.2e+02; ive 0; Mismatches 0; Indels
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                          Query Match
Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity
Matches 4; Conserv
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A;Molecule type: DNA
A;Residues: 1-137 <STO>
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hypotherical protein homolog lin1676 [imported] - Listeria innocua (strain Clip11262)
C;Species Listeria innocua
C;Species Listeria innocua
C;Species Listeria innocua
C;Species Listeria innocua
C;Baccesion: AC1642
R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecke
C; Dominguez-Bernal, G; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H.D.; Jones, L.M.; Karst, U.
C; Calence 294, 849-852, 2001
A;Authors Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; F.
A;Authors: Science 204, 849-852, 2001
A;Authors Kreft, J.; Simose, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehland
A;Title: Comparative genomics of Listeria species
A;Title: Comparative genomics of Listeria species
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Status: preliminary
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C.Joace: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
C.Accession: B83069
R.Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: DNA |
A;Realduse: 1-142 <GLAC |
A;Cross-references: UNIPROT:Q92B74; GB:AL592022; PIDN:CAC96907.1; PID:g16414163; GSPDB
A;Experimental source: strain Clip11262
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A;Molecule type: DNA
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Best Local Similarity
Matches 4; Conserv
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                                                                                           54 HARL 57
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                                   1 HARL 4
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A;Gene: CESP:F41G3.4
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R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker, D.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihl, H. D.; Jones, L.M.; Karst, U. Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maltournam, A.; Ma A;Authors: Kreft, J.; Simoee, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehland, A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:P00465
B. Experimental source: strain S1329
C;Comment: The key enzymatic reactions in nitrogen fixation are catalyzed by the nitroged the molybdenum-iron protein, which is a tetramer of two alpha and two beta chains that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Accession: A00543
R;Scott, K.F.; Rolfe, B.G.; Shine, J.
NAA 2, 149-155, 1983
A;Title: Biological nitrogen fixation: primary structure of the Rhizobium trifolii iron A;Reference number: A90942; MUID:83261209; PMID:6307623
A;Accession: A00543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Keywords: 4Fe-4S; ATP; iron; iron-sulfur protéin; metalloprotein; molybdenum; nitrogen
$17-141/Domain: nitrogenase vanadium-iron protein alpha chain homology (fragment) <VIA»
F;72,98/Binding site: 4Fe-4S cluster 1 (Cys) (covalent) #status predicted
F;98/Binding site: 4Fe-4S cluster 2 (Cys) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                               trogenase (EC 1.18.6.1) molybdenum-iron protein alpha chain - Rhizobium leguminosarum
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A,Experimental source: strain EGD-e
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N;Alternate names: dinitrogenase alpha chain; nitrogenase, component I alpha
C;Species: Rhizobium leguminosarum bv. trifolii
C;Date: 14-Nov-1983 #sequence_revision 14-Nov-1983 #text_change 09-Jul-2004
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C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 09-Jul-2004
                                                                                                                                                            Gaps
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                                                                                              Length 140;
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                                                                                           100.0%; Score 21; DB 2; 1 100.0%; Pred. No. 2.4e+02;
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100.0%; Pred. No. 2.4e+02;
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A;Gene: Atu2048
A;Map position: circular chromosome
                                                                                        Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
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Best Local Similarity
Matches 4; Conservi
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Best Local Similarity
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Length 145;

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C;Genetics:
A;Gene: AAR C 3613
A;Map position: circular chromosome
C;Superfamily: Signal transduction receiver (phosphoacceptor) protein, CheY type; respo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein EC94986 [imported] - Escherichia coli (strain O157:H7, substrain R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CiSpecies: Escherichia coli
CiDate: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
CiDate: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004
CiAccession: B9125.
RiHayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G. gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H.
DNA Res. 11-22, 2001
A;Thie: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7 and gen.
A;Reference number: A99629; MUD:21156231; PMID:11258796
A;Accession: B9125.
A;Accession: B9125.
A;Accession: B9125.
A;Molecule type: DNA
A;Accession: B0127:H7; Substrain RIMD 0509952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Gene: ECs4986
C;Superfamily: Haemophilus influenzae hypothetical protein HI1519
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                                                                                                                                                                                      Query Match
100.0%; Score 21; DB 2; I
Best Local Similarity 100.0%; Pred. No. 2.4e+02;
Matches 4; Conservative 0; Mismatches 0;
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19 HARL 22
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C_iSpecies: Agrobacterium tumefaciens
C_iSpecies: Agrobacterium tumefaciens
C_iSpecies: 30-80p-2001 #sequence_revision 30-Sep-2001 #text_change 16-Aug-2004
C_iAccession: F97598
R_iGoodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman, A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.; Science 294, 2323-2328, 2001
A;Title: Genome Sequence of the plant Pathogen and Biotechnology Agent Agrobacterium tum A;Reference number: A97359; MUID:21608551; PMID:11743194
A;Reference number: A97359; MUID:21608551; PMID:11743194
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-145 < KUR>
A;Residues: 1-145 < KUR>
A;Cross-references: UNIPROT:QBUDX1; GB:AE007869; PIDN:AAK87743.1; PID:g15157110; GSPDB:G
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A;Cross-references: UNIPROT:Q8UDY1; GB:AE008688; PIDN:AAL42980.1; PID:g17740440; GSPDB:G
A;Experimental source: strain C58 (Dupont)
man, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim,
Lory, S.; Olson, M.V.
ture 406, 959-964, 2000
                                                                                                                   A,Title: Complete genome seguence of Pseudomonas aeruginosa PA01, an opportunistic pathd
A,Reference number: A82950; MUID:20437337; PMID:10984043
A,Accession: B83069
                                                                                                                                                                                                                               A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-144 <STO>
A;Coost-references: UNIPROT:Q9HVIO; GB:AE004875; GB:AE004091; NID:g9950857; PIDN:AAG0799
A;Experimental source: strain PAO1
C;Genetics:
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R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, I seage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClell; Karp, P.; Romero, P.; Zhang, S. Science 294, 2317-2323, 2001
A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Map position: circular chromosome
C;Superfamily: Signal transduction receiver (phosphoacceptor) protein, CheY type; respon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   two component response regulator Atul985 [imported] - Agrobacterium tumefaciens (strain C;Species: Agrobacterium tumefaciens C;Date: 11-Jan-2002 #text_change 16-Aug-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ster, B.W.
Ajille: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens CS8.
A;Reference number: AB2577; MUID:21608550; PMID:11743193
A;Accession: AF2820
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A,Gene: Atu1985
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potential phosphate regulatory protein - Rhodobacter capsulatus
C;Species: Rhodobacter capsulatus
C;Species: Rhodobacter capsulatus
C;Species: Rhodobacter capsulatus
C;Species: Anar-1999 #sequence_revision 24-Mar-1999 #text_change 09-Jul-2004
C;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #text_change 09-Jul-2004
C;Ccession: T03477
R;Vlcek, C: Paces, V: Maltsev, N: Paces, J: Haselkorn, R.; Fonstein, M.
Proc. Natl. Acad. Sci. U.S.A. 94, 9384-9388, 1997
A;Vlcek, C: Paces, C: U.S.A. 94, 9384-9388, 1997
A;Vlcek, C: Paces, U.S.A. 94, 9384-9388, 1997
A;Ritler Sequence of a 189-kb segment of the chromosome of Rhodobacter capsulatus SB100
A;Reference number: Z19955; MulD:97404404; PMID:9256491
A;Accession: T03477
A;Accession: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-149 <VLC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A, Map position: 1 C. Superfamily: signal transduction receiver (phosphoacceptor) protein, CheY type; response; F_1:29-140/Domain: response regulator homology <RRH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A,Cross-references: UNIPROT:068044; EMBL:AF010496; NID:g3128256; PIDN:AAC16130.1; PID:g
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Best Local Similarity 100.0%; Pred. No. 2.5e+02;
Matches 4; Conservative 0; Mismatches 0;
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A;Cross-references: UNIPROT:Q45954; EMBL:X75356; NID:g407370; PIDN:CAA53135.1; PID:g580
C;Genetics:
submitted to the EMBL Data Library, October 1993
A;Reference number: S38215
A;Accession: S38247
A;Status: preliminary
A;Belecule type: DNA
A;Residues: 1-152 <THI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPROT:Q50189; EMBL:Z70722 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein - Mycobacterium leprae
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Best Local Similarity
Matches 4; Conserv
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nes 4; Conserv
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A,Accession: E95314
A,Accession: E95314
A,Accession: E95314
A,Accession: Preliminary
A,Accession: Preliminary
A,Rolecule type: DNA
A,Residues: 1-149 <kUR>
A,Across-references: UNIROT: 0925W8; GB:AE006469; PIDN:AAK65079.1; PID:g14523514; GSPDB:G
A,FEXPerimental source: strain 1021, megaplasmid pSymA
A,Faction B, Cowie, A: Davis, R., Publer, A.; Abola, P.; Ampe, F.; Barloy-Hubler,
R;Galibert, F.; Finan, T.M.; Lowie, A.; Davis, R.W.; Dreano, S.; Federspiel, N.A.; Fisher, R.F.;
L.; Hyman, R.W.; Jones, T.
Science 293, 668-672, 2001
A,Authors: Kahn, M.L.; Kalman, S.; Keating, D.H.; Kiss, E.; Komp, C.; Lelaure, hebault, P; Vandenbol, M.; Vorholter, F.J.; Weidner S.; Wells, D.H.; Wong, K.; Yeh, K.
A,Title: The composite genome of the legume symbiont Sinorhizobium meliloti.
A,Reference number: A96039; MUID:21368234; PMID:11474104
                                                          Conserved hypothetical protein SMa0781 [imported] - Sinorhizobium meliloti (strain 1021)
C;Species: Sinorhizobium meliloti
C;Species: Sinorhizobium meliloti
C;Species: Sinorhizobium meliloti
C;Date: 24-Aug-2001 #sequence_revision 24-Aug-2001 #text_change 09-Jul-2004
C;Accession: B95314
R;Barnett, M.J.; Fisher, R.F.; Jones, T.; Komp, C.; Abola, A.P.; Barloy-Hubler, F.; Bows ; Kalman, S.; Keating, D.H.; Palm, C.; Peck, M.C.; Surzycki, R.; Wells, D.H.; Yeh, K.C. Proc. Natl. Acad. Sci. U.S.A. 98, 9889, 2001
A;Title: Nucleotide sequence and predicted functions of the entire Sinorhizobium melilot A;Reference number: A95262; MUID:21396509; PMID:11481432
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C;Genetics:
A;Introns: 78/3
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C;Species: Chlamydomonas reinhardtii
C;Species: Chlamydomonas reinhardtii
C;Date: 04-Feb-1998 #sequence_revision 13-Feb-1998 #text_change 09-Jul-2004
C;Accession: S72243
A;Reference 144, 569-585, 1996
A;Title: The dynein gene family in Chlamydomonas reinhardtii.
A;Reference number: S72239; MUID:97044450; PMID:8889521
A;Accession: S72243
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: DMA
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C;Species: Coxiella burnetii
C;Decies: Peb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004
C;Accession: S38247
R;Thiele, D.; Willems, H.; Haas, M.; Krauss, H.
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100.0%; Pred. No. 2.5e+02;
ive 0; Mismatches 0;
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nes 4; Conser
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A,Gene: SMa0781
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hypothetical protein Rv0019c - Mycobacterium tuberculosis (strain H37RV)
Cispecies: Mycobacterium tuberculosis
Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Hamlin, N.; Holroyd, S. Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. A; Authors: Sqares, R.; Sulscon, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.
A; Attle: Deciphering the biology of Mycobacterium tuberculosis from the complete genome A; Reference number: A70500; MUID: 98295987; PMID: 9634230
A; Status: preliminary; nucleic acid sequence not shown; translation not shown
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A;Cross-references: UNIPROT:P71589; GB:Z80233; GB:AL123456; NID:g3261645; PIDN:CAB02439
A;Experimental source: strain H37Rv
C;Genetics:
A;Gene: Rounce: Strain H37Rv
C;Genetics:
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C;Date: 16-Jul-1999 #text_change 09-Jul-2004
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 09-Jul-2004
C;Accession: T10014
A;Reference number: 216916
A;Reference number: 216916
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-155 <COL>A;Residues: 1-155 <
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C;Superfamily: Streptomyces coelicolor hypothetical protein SCH69.14
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Best Local Similarity 100.0%; Pred. No. 2.6e+02;
Matches 4; Conservative 0; Mismatches 0; Indels
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         100.0%; Score 21; DB 2; I 100.0%; Pred. No. 2.6e+02; ive 0; Mismatches 0;
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R.NG, W.V.; Kennedy, S.P.; Mahairas, G.G.; Berquist, B.; Pan, M.; Shukla, H.D.; Lasky, I. Leithauser, B.; Keller, K.; Cruz, R.; Danson, M.J.; Hough, D.W.; Maddocks, D.G.; Jabl. Jung, K.H.; Alam, M.; Freitas, T.
Proc. Natl. Acad. Sci. U.S.A. 97, 12176-12181, 2000
A;Authors: Hou, S.; Daniels, C.J.; Dennis, P.P.; Omer, A.D.; Ebhardt, H.; Lowe, T.M.; L. A;Reference aequence of Halobacterium species NRC-1.
A;Reference number: A84160; MUID:20504483; PMID:11016950
                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: UNIPROT: Q9HR46; GB:AE004437; NID:g10580432; PIDN:AAG19312.1; GSPDB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Species: Agrobacterium tumefaciens
C; Date: 11.-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004
C; Accession: AF3135
C; Accession: AF3135
R; Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClell, Karpy, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
A; Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Accession: T36282
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-160 < MURA
A;Residues: 1-160 < MURA
A;Cross-references: UNIPROT:Q8CJX0; EMBL:AL079345; PIDN:CAB45368.1; GSPDB:GN00070; SCOE.
A;Experimental source: strain A3(2)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ster, E.W.
A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.
A;Reference number: AB2577; MUID:21608550; PMID:11743193
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A,Gene: nuoE
A,Map position: linear chromosome
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1es 4; Conservative
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Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                      A;Molecule type: DNA
A;Residues: 1-157 <STO>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HARL 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: AF3135
A; Status: preliminary
A; Molecule type: DNA
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                                                                                                                                                                                                                                                      C; Species: Salmonella enterica subsp. enterica subsp. enterica servor probabile membrane procession: Salmonella enterica subsp. enterica servor probabile species has also been called Salmonella typhi
A;Note: this species has also been called Salmonella typhi
C;Dates 109-NOV-2001 #sequence_revision 09-NOV-2001 #text_change 18-NOV-2002
C;Accession: AF0606
R;Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher, th, T.; Connerton, P.; Cronin, A.; Davis, R.M.; Dowd, L.; White, N.; Farrar, S.; Mource 413, 848-852, 2001
Nature 413, 848-852, 2001
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A;Title: Complete genome sequence of a multiple drug resistant Salmonella enterica servow A;Reference number: AB0502; MUID:21534947; PMID:11677608
A;Reference number: AB0502; MUID:21534947; PMID:11677608
A;Residues: 1-157 cPAR>
A;Cross-references: GB:AL513382; PIDN:CAD05320.1; PID:g16502084; GSPDB:GN00176
C;Genetics:
C;Genetics:
A;Gene: STY0914
C;Superfamily: Escherichia coli probable membrane protein ybjo
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C;Accession: AH0999
R;Parkhill, J; Dougan, G; James, K.D; Thomson, N.R.; Pickard, D.; Wain, J; Churcher, L. T.; Connerton, P; Cronin, A; Davis, P; Davies, R.M.; Dowd, L; White, N.; Farrar, S.; Moule, S; O'Gaora, P.
Nature 413, 848-852, 2001
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A;Atthors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A;Atthors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A;Atthors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A;Atthors: AB0502; MUID:21534947; PMID:11677608
                                                                                                                                                                                                                                     [imported] - Salmonella enterica subsp. enterica serov
sp. enterica serovar Typhi
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C;Genetics:
A;Gene: yrfB
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hypothetical protein Vng0868h [imported] - Halobacterium sp. NRC-1
C;Species: Halobacterium sp. NRC-1
C;Species: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
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                                                                                                                                                                                                         probable membrane protein STY0914 C; Species: Salmonall crt.
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Best Local Similarity 100.
Matches 4; Conservative
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A;Molecule type: DNA
A;Residues: 1-157 <PAR>
                                                                 104 HARL 107
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Cipate: 15-58p-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
Cipate: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
Cipate: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
Cipate: 15-Sep-2000 #sequence_revision #N.1.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Edman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Liu, Iorry, S.; Olson, M.V.
Mature 406, 959-964, 2000
A; Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic path A; Reference number: A82950; MuID:20437337; PMID:10984043
A; Accession: D8293
A; Accession: D8293
A; Residues: 1-162 <STO>
A;
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Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
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                            100.0%; Pred. No. 2.7e+02; ive 0; Mismatches 0;
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100.0%; Pred. No. 2.7e+02;
ive 0; Mismatches 0;
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C,Superfamily: regulatory protein asnC
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                            Best Local Similarity Matches 4; Conserv
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Job time: 41 secs
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A;Molecule type: DNA
A;Residues: 1-160 «KUR»
A;Cross-references: UNIPROT:Q8UAV2; GB:AE008689; PIDN:AAL44081.1; PID:g17741646; GSPDB:G
A;Experimental source: strain C58 (Dupont)
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R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, I erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClell Karpe, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cyface: U. C. Mar. 2004 #Sequence_revision Olympia. Condition #Text_Change Olympia. Cyface: Cyfaces of Cyfaces
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Ajtile: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens CS8.
A;Reference number: AB2577; MUID:21608550; PMID:11743193
A;Accession: AC2958
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C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Pate: 02-Mar.2001 #sequence_revision 02-Mar-2001 #text_change 09-Jul-2004
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100.0%; Score 21; DB 2; I
Best Local Similarity 100.0%; Pred. No. 2.7e+02;
Matches 4; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0%; Pred. No. 2.7e+02;
Matches 4; Conservative 0; Mismatches 0;
C,Genetics:
A,Gene: trpS, SCOEDB:SCE68.32
C,Superfamily: tryptophan-tRNA ligase
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MEDLINE-21913005; PubMed=11916201;

Teich N., Walther K., Bodeker H., Mossner J., Keim V.;

Teich N., Walther K., Bodeker H., Mossner J., Keim V.;

"Relevance of variants in serum antiproteinases for the course of chronic pancreatitis.";

Scand. J. Gastroenterol. 37:360-365(2002).

EMBL, AF349032; AAK38109.1; --

EMBL, AF349033; AAK38100.1; --

EMBL, AF349033; AAK38110.1; --

EOS, CO:0004866; F:endopeptidase inhibitor activity; IEA.

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Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
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DOI=10.1128/IAI.71.5.2775-2786.2003;
Wei J., Goldberg M.B., Burland V., Venkatesan M.M., Deng W.,
Wei J., Goldberg M.B., Purland V., Venkatesan M.M., Darling A.,
Rounier G., Mayhew G.F., Plunkett G. III, Rose D.J., Darling A.,
Mau B., Perna N.T., Payne S.M., Runyen-Janecky L.J., Zhou S.,
Schwartz D.C., Blattner F.R.;
"complete genome sequence and comparative genomics of Shigella
flexneri serotype 2a strain 2457T.";
Infect. Immun. 71.2775-2786(2003).
EMBL; AR016978; AAP15745.1; -.
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Enterobacteriaceae, Shigella.
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                                                                                                                                                                                                                                               Teich N., Mossner J., Keim V.;
Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
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SEQUENCE 37 AA; 3964 MW; S4EDAF9D68DD3F57 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37 AA; 4390 MW; AFEIC0124ACBF415 CRC64;
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Alpha-2-macroglobulin (Fragment).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=22592660; PubMed=12705866; DOI=10.1016/S0092-8674(03)00233-2; MEDLINE=22592660; PubMed=12705866; DOI=10.1016/S0092-8674(03)00233-2; Pedulla M.L., Ford M.E., Houtz J.M., Karthikeyan T., Wadsworth C., Lewis J.A., Jacoba-Sera D., Falbo J., Gross J., Pannunzio N.R., Brucker W., Kumar V., Kandasamy J., Keenan L., Bardarov S., Kriakov J., Lawrence J.G., Jacobs W.R. Jr., Hendrix R.W., Hatfull G.F., "Origins of highly mosaic mycobacteriophage genomes."; Cell 113.171-182(2003).

SEQUENCE 32 AA, 3523 MW; 43C968104E0B3FAB CRC64;
                                                                                                                                                                                                                                                                                                Bacteria; Firmicutes; Lactobacillales; Enterococcaceae; Enterococcus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mycobacteriophage Omega.
Viruses; dsDNA viruses, no RNA stage; Caudovirales; Siphoviridae.
NCBI_TaxID=205879;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 21; DB 2; Length 31; 100.0%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence and genetic analyses of sex pheromone respon
Mol. Microbiol. 37:1327-1341(2000).
EMBL, AE002565; AAG4021.1; -.
Hypothetical protein; Plasmid.
SEQUENCE 31 AA; 3509 MW; 4E19CB94B3DB9421 CRC64;
                                                                          ol-MAR-2001 (TrEMBLrel. 16, Created)
01-WAR-2001 (TrEMBLrel. 16, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Numer EP0010;
Blanch EP0010;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel. 24, Created)
(TrEMBLrel. 24, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                    Enterococcus faecalis (Streptococcus faecalis).
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Q9BQ22;
01-JUN-2001 (TrEMBLrel. 17, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 100.
1es 4; Conservative
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es 4, Conserv
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                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=1351;
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                                                                                                                                                                                                                                                                                Plasmid pAM373.
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01-JUN-2003
01-JUN-2003
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Q854D5;
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Matches
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STRAIN-Cereon,
MEDLINE=21608551; PubMed=11743194; DOI=10.1126/science.1066803;
Goodnore B., Hinkle G., Gattung S., Miller N., Blanchard M.,
Qurollo B., Goddman B.S., Cao Y., Askenazi M., Halling C., Mullin L.,
Houmiel K., Gordon J., Vaudin M., Iartchouk O., Epp A., Liu F.,
Wollam C., Allinger M., Doughty D., Scott C., Lappas C., Markelz B.,
Flanagan C., Crowell C., Gurson J., Lomo C., Sear C., Strub G.,
Geloome sequence of the plant pathogen and biotechnology agent
Agrobacterium tumefaciens C58.";
                                                                                                                                                                                                                                                                               Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGR_C_4298p.
OrderedLocusNames=AGR_C_4298;
Agrobacterium tumefacTems (strain C58 / ATCC_33970).
Bacteria; Protecobacteria; Alphaprotecobacteria; Rhizobiales; Rhizobian/Agrobacterium group; Agrobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 21; DB 2; Length 42; 100.0%; Pred. No. 4.7e+02; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        42 AA; 4919 MW; 4CB2418E68408816 CRC64;
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01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
                                                                                                                                                    42 AA.
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                                                                                                                                                                                                                                                              R2R3-MYB protein (Fragment).
Arabidopsis thaliana (Mouse-ear cress).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003677; R:DNA binding; IEA.
InterPro; IPR009057; Homeodomain like.
InterPro; IPR001005; Myb DNA binding.
Pfam; PF00249; Myb DNA-binding; 1.
SMART; SM00117; SANT; 1.
PROSITE; PS50090; MYB 3; 1.
                                                                                                                                                                                                Created)
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                                                                                                                                                                                                01-MAY-2000 (TrEMBLrel. 13,
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NON_TER 42
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                                       HARL 7
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Viruses, seRNA negative-strand viruses; Mononegavirales; Bornaviridae;
Bornavirus.
                                                                                                                                                                                                                                                                                                                                                                           Duchaud E., Rusniok C., Frangeul L., Buchrieser C., Givaudan A., Taourit S., Boors S., Boursaux-Eude C., Chandler M., Charles J.-F., Dassa E., Derose R., Derzelle S., Freyssinet G., Gaudriault S., Medigue C., Lanois A., Powell K., Siguier P., Vincent R., Wingate V., Zouine M., Glaser P., Boemare N., Danchin A., Kunst F.; "The genome sequence of the entomopathogenic bacterium Photorhabdus luminescens.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-20086018; PubMed-10622306; DOI=10.1016/S0140-6736(99)04703-0; Schwemmle M., Jehle C., Formella S., Staehell P.; "Sequence similarities between human Bornavirus isolates and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                              Photorhabdus luminescens (subsp. laumondii).
Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Photorhabdus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 39;
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Schwemmle M., Jehle C., Formella S., Staeheli P.;
Schwemmle M., Jehle C., Formella S., Staeheli P.;
Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ250179; CAB87242.1;
NON TER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39 AA; 4480 MW; 5E0EC38FAB8C38CB CRC64;
                                                                              01-MAR-2004 (TrEMBLrel. 26, Created)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Similarities with bacteriophage protein.
OrderedLocusNames=plu4366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-07T-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
Glycoprotein (Fragment).
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Lancet 354:1973-1974(1999).
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                                         39 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nat. Biotechnol. 21:1307-1313(2003).
                                         PRT;
                                                                                                                                                                                                                                                                                                                                  STRAIN=TT01;
MEDLINE=22957627; PubMed=14528314;
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Matches 4; Conservative C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Complete proteome.
SEQUENCE 39 AA;
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(Gossypium hirsutum L.).",
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PROSITE; PS50090; MYB_3; 1.
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Best Local Similarity
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29 HARL 32
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01-0CT-2003
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SEQUENCE
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                                                                                                                                                       Gaps
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Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids; eurosids II; Malvales; Malvaceae; Malvoideae; Gossypium.

NCBI_TaxID=3635;
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MEDLINE=22941922; PubMed=14580676; DOI=10.1016/j.bbaexp.2003.08.009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Salanoubat M., Genin S., Artiguenave F., Gouzy J., Mangenot S., Arlat M., Billault A., Brottier P., Camus J.C., Cattolico L., Chandler M., Choisne N., Claudel-Renard C., Cunnac S., Demange N., Gaspin C., Lavie M., Moisan A., Robert C., Saurin W., Schiex T., Siguier P., Thebault P., Whalen M., Wincker P., Levy M., Weissenbach J., Boucher C.A.;
"Genome sequence of the plant pathogen Ralstonia solanacearum.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                              PUTATIVE PILIN PROTEIN.
Name-RS01563; OrderedLocusNames-RSC0659;
Ralstonia golanacearum (Pseudomonas solanacearum)
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
Burkholderiaceae; Ralstonia.
                                                                                                      100.0%; Score 21; DB 2; Length 44; 100.0%; Pred. No. 4.9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 21; DB 2; Length 45; 100.0%; Pred. No. 5e+02; ive 0; Mismatches 0; Indels
                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=GMI1000;
MEDLINE=21681879; PubMed=11823852; DOI=10.1038/415497a;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45 AA; 4776 MW; 9C76F7F9D65B3F05 CRC64;
                                                              44 AA; 4868 MW; B29035AD358B6A8C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                  01-WAR-2002 (TrEMBLrel. 20, Created)
01-WAR-2002 (TrEMBLrel. 20, Last sequence update)
01-WAR-2002 (TrEMBLrel. 20, Last annotation update)
                                                                                                                                                                                                                                                                                                                                               45 AA.
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                                                                                                                                                                                                                                                                                                                                               PRT;
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EMBL, AL646660; CAD14189.1; -.
COmplete proteome.
SEQUENCE 45 AA; 4776 MW; 9C
Science 294:2323-2328(2001).
EMBL; AE008151; AAK88107.1; -.
PIR; B97644; B97644.
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                                                                                                                                                    4; Conservative
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                                                                                                        Query Match
Best Local Similarity
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                                                                SEQUENCE
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Morrison H.G., McArthur A.G., Adam R.D., Aley S.B., Gillin F.D.
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"Draft sequence of the Giardia lamblia genome.";
Submitted (MAR-202) to the EMBL/GenBank/DDBJ databases.
-!- CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which prelimiary data.

EMBL, AACBOLO00181: EAA36747.1; -- SEQUENCE 51 AA; 5957 NW; 77A8A64D2875CGE9 CRC64;
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Bukaryota, Diplomonadida, Hexamitidae, Giardiinae, Giardia.
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                                                                                                                                                                                                                                                                                                                                                                                                                        Length 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
Blochim. Blophys. Acta 1630:25-34 (2003).

-1 - SUBCELLUIAR LOCATION: Nuclear (By similarity).
-1 - SIMILARITY: Contains 1 Myb-like domain.
EMBL; AJ453156; CAD30605.1; -.
HSSP; P06876; IGV2.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0005634; C:nucleus; IEA.
InterPro; IPR0010057; HOmeodomain like.
InterPro; IPR0010057; Myb_DNA_binding.
PF00249; Myb_DNA_binding.
                                                                                                                                                                                                                                                                                                                                                46 AA; 5296 MW; 4A7235042E02E5D6 CRC64;
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Last annotation update)
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Last annotation update)
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Gaps

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STRAIN-GMI1000;
MEDLINE-21681879; PubMed=11823852; DOI=10.1038/415497a;
MEDLINE-21681879; PubMed=11823852; DOI=10.1038/415497a;
MEDLINE-21681879; PubMed=11823852; DOI=10.1038/415497a;
Mandenoth A., Gardin S., Artiguenave F., Goury J., Mangenot S.,
Arlat M., Billault A., Brottier P., Camus J.C., Cattolico L.,
Chandler M., Choisne N., Claudel-Renard C., Cunnac S., Demange N.,
Manglin C., Lavie M., Moisan A., Robert C., Saurin W., Schiex T.,
Malsenbach J., Boucher C.A.,
Melsenbach J., M
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MEDLINE=98037514; PubMed=9371463;
Smith D.R., Doucette-Stamm L.A., Deloughery C., Lee H.-M., Dubois J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
Hypothetical protein RSc3074,
Name-RS00523; OrderedLocusNames-RSc3074;
Ralstonia solanacearum (Beeudomonas solanacearum).
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
NCBI_TaxID=305;
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                                                                                                                                                                                                                                                                                                  Length 52;
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   Ortega X., Hunt T.A., Valvano M.A.; Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases. EMBL; Ax633623; AxT48330.1; -. GO; GO:0016740; F:transferase activity; IEA.
                                                                                                                                                                                  1
52 AA; 5931 MW; 837076987AD49A80 CRC64;
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01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-JAN-1998 (TrEMBLrel. 24, Last annotation update)
Hypothetical protein MTH1750.
OrderedLocusNames=MTH1750;
                                                                                                                                                                                                                                                                                           100.0%; Score 21; DB 2; I 100.0%; Pred. No. 5.8e+02; tive 0; Mismatches 0;
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Best Local Similarity 100.v
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Best Local Similarity
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SEQUENCE
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                                                           MEDLINE=22735913; PubMed=12835416; DOI=10.1073/pnas.1431443100; Gloeckner P.O.; Kube M., Bauer M., Teeling H., Lombardot T., Ludwig W., Gade D., Beck A., Borzym K., Heitmann K., Rabus R., Schleener H., Amann R., Reinhardt R., "Complete genome sequence of the marine planctomycete Pirellula sp.
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Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
Burkholderiaceae; Burkholderia.
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GO; GO:0003964; F:RNA-directed DNA polymerase activity; IEA.
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Submitted (DEC-1998) to the EMBL/GenBank/DDBJ databases.
EMBL, AF114256, AAD18018.1;
                                                                                                                                                                                                                                   Errain 1.";
Proc. Natl. Acad. Sci. U.S.A. 100:8298-8303(2003).
EMBL; BX294152; CAD77010.1; -.
Complete proceome; Hypothetical protein.
SEQUENCE S1 AA; 5642 MW; PCE6166138B5CB09 CRC64;
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0-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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Matches 4; Conservative
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Oryza sativa (japonica cultivar-group).
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Brhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Buell C.R., Yuan Q., Ouyang S., Liu J., Gansberger K., Jones K.M., Overton II L.L., Tsitrin T., Kim M.M., Bera J.J., Jin S.S., Fadrosh D.W., Tallon L.J., Koo H., Zismann V., Hsiao J., Blunt S., Vanaken S.S., Riedmuller S.B., Utterback T.T., Feldblyum T.V., Yang Q.Q., Haas B.J., Suh B.B., Peterson J.J., Quackenbush J., White O., Salzberg S.L., Fraser C.M.; Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.
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                                                                                                                                       Sasaki T., Matsumoto T., Yamamoto K.;
"Oryza sativa nipponbare(GA3) genomic DNA, chromosome 7, 1
clone:OJ1136_A05.";
submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AP005098; BAD30814.1; -.
                                    Sasaki T., Matsumoto T., Katayose Y.;
"Oryza sativa nipponbare(GA3) genomic DNA, chromosome 7,
                                                                    clone:OSJNBa0008Cil.";
Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
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Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; ACIJB001; AAP68416.1; -.
Gramene; Q7XZX7; -.
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                                                                                                                                                                                                                                              Hypothetical protein.
SEQUENCE 62 AA; 6485 MW; BIABDAAE1372BA02 CRC64;
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Last annotation update)
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Last sequence update)
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01-OCT-2003 (TrEMBLrel. 25, Last ann
Hypothetical protein OSJNBa0093M23.1
Name-OSJNBa0093M23.1;
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01-NOV-1996 (TrEMBLrel. 01,
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28 HARL 31
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ID Q07020
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DT 01-NOV
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25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein OSJNBa0008C11.4 (Hypothetical protein
OJ1136 A05.30)
Name=OSJNBa0008C11.4; Synonyms-OJ1136 A05.30;
Oryza sativa (japonica cultivar-group).
Bukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta, Liliopsida; Poales; Poaceae,
Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K., Harrison D., Hoang L., Keagle P., Lumm W., Pothier B., Qiu D., Spadafora R., Vicare R., Wang Y., Wierzbowski J., Gibson R., Jiwani N., Caruso A., Bush D., Safer H., Patwell D., Prabhakar S., McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M., Complete genome sequence of Merhanobacterium thermoautotrophicum deltaH: functional analysis and comparative genomics.";

"Bacteriol. 179:7135-7155(1997).

BMBL, AE000930; AAB86220.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baba T., Takeuchi F., Kuroda M., Yuzawa H., Aoki K.-I., Oguchi A., Nagai Y., Iwama N., Asano K., Naimi T., Kuroda H., Cui L., Yamamoto K., Hiramatsu K.; Ganome and virulence determinants of high virulence community-
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Lancet 359:1819-1827(2002).
EMBL, AP004827: BAB95242.1; -.
Complete proteome; Hypothetical protein.
SEQUENCE 61 AA; 6923 MW; 632F2454DA3C0422 CRC64;
                                                                                                                                                                                                 Complete proteome; Hypothetical protein.
SEQUENCE 59 AA; 6658 MW; 6559DBB37EED72F0 CRC64;
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01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
1-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Hypothetical protein MW1377.
OrderedLocusNames=MW1377;
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Bacteria; Firmicutes; Bacillales; Staphylococcus.
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Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C.M.,
Harris D.E., Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III,
Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T.,
Connor R., Davies R.M., Devlin K., Feltwell T., Gentles S., Hamlin N.,
Holroyd S., Hornsby T., Jagels K., Krogh A., McLean J., Moule S.,
Murphy L.D., Oliver S., Osborne J., Quail M.A., Rajandream M.A.,
Rogers J., Rutter S., Seeger K., Skelton S., Squares S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The genome of the natural genetic engineer Agrobacterium tumefaciens \mathsf{C58.}^{\circ}_{i},
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gordon D.,
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Okura V.K., Zhou Y., Chen L., Wood G.E., Almeida N.F. Jr., Woo L.,
Chen Y., Paulsen I.T., Eisen J.A., Karp P.D., Bovee D. Sr.,
Chapman P., Clendenning J., Deatherage G., Gillet W., Grant C.,
Kutyavin T., Levy R., Li M.-J., McClalland B., Palamieri A.,
Kaymond C., Rouse G., Saemphimmachak C., Wu Z., Romero P., Gordon D.
Zhang S., Yoo H., Tao Y., Biddle P., Jung M., Krespan W., Perry M.,
Gordon-Kamm B., Liao L., Kim S., Hendrick C., Zhao Z.-Y., Dolan M.,
Nester B.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=21608550; PubMed=11743193; DOI=10.1126/science.1066804;
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                                                                                                                                                                                                                                                                                                    Agrobacterium tumefaciens (strain C58 / ATCC 33970).
Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
Rhizobiaceae; Rhizobium/Agrobacterium group; Agrobacterium.
NCBI_TaxID=176299;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Complete proteome; Hypothetical protein.
SEQUENCE 67 AA; 7608 MW; 351679E2DBE08499 CRC64;
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MEDLINE=98295987; PubMed=9634230; DOI=10.1038/31159;
MEDLINE=98295987; PubMed=9634230; DOI=10.1038/31159;
                                                                                                                                                                                                                  01-JUN-2002 (TrEMBLrel. 21, Last sequence update) 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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Last annotation update)
                                                                                                                                                      67 AA.
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                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                      PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Science 294:2317-2323(2001).
EMBL; AE008985; AAL41140.1; -.
PIR; AF2590; AF2590.
                                                                                                                                                                                                                                                            Hypothetical protein Atu0115.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mycobacterium tuberculosis.
                                                                                                                                                                                                                                                                                    OrderedLocusNames=Atu0115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0
Local 4; Conservative
                                                                                                                                                      PRELIMINARY;
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ORFNames=Rv2998A;
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                                            50 HARL 53
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      1 HARL 4
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                                                                                                                                                                              Q8UJ23;
                                                                                                                                                      Q8UJ23
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A Atkins T. Crossman L.C., Pitt T., Churcher C., Mungall K.,
A Atkins T., Crossman L.C., Pitt T., Churcher C., Mungall K.,
A Bencley S.D., Sebaihia M., Thomson N.R., Bason N., Beacham I.R.,
Bencley S.D., Sebaihia M., Thomson N.R., Challis G.L., Cherevach I.,
Chillingworth T., Cronin A., Crosset B., Davis P., DeShazer D.,
A Feltwell T., Fraser A., Hance Z., Hauser H., Holroyd S., Jagels K.,
Keith K.E., Maddison M., Moule S., Price C., Quail M.A.,
Rabbinowitsch E., Rutherford K., Sanders M., Simmonds M.,
Songsivilai S., Stevens K., Tumapa S., Vesaratchavest M.,
Myntchead S., Yeats C., Barrell B.G., Oyston P.C.F., Parkhill J.;
T. Genomic plasticity of the causative agent of melioidosis,
T. Burkholderia pseudomallei.";
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                                                                                                                                                                                                                                                                                                                                                                                   Manning P.A., Stroeher U.H., Karageorgos L.E., Morona R., "Putative O-antigen transport genes within the rfb region of Vibrio cholerae Ol are homologous to those for capsule transport."; Gene 158:1-7(1995).
                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=95309704; PubMed=7540582; DOI=10.1016/0378-1119(95)00124-0;
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Bacteria, Proteobacteria, Betaproteobacteria, Burkholderiales,
Burkholderiaceae, Burkholderia.
                                                                    Bacteria; Proteobacteria; Gammaproteobacteria; Vibrionales; Vibrionaceae; Vibrio. WCBI_TaxID=666;
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Best Local Similarity 100.0%; Pred. No. 7.4e+02;
Matches 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                 Stroeher U.H., Karageorgos L.E., Morona R., Manning P.A., "Serotype conversion in Vibrio cholerae 01.", Proc. Natl. Acad. Sci. U.S.A. 89:2566-2570(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 21; DB 2; Length 65; 100.0%; Pred. No. 7.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            JEMBE, X5554; CAA42147.1; -.
PIR; S28481; S28481.
PRR; S28481; S28481.
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01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein.
ORFNames=BPSS1578a;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Proc. Natl. Acad. Sci. U.S.A. 101:14240-14245(2004)
EMBL; BX571966; CAH39052.1; -.
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                                                                                                                                                                                                                MEDLINE=92212870; PubMed=1372980;
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Best Local Similarity luu...
4; Conservative
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SEQUENCE 66 AA; 691
                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                Vibrio cholerae.
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                        RfbQ protein.
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RESULT 21 Q63JY7

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MEDILINE=21844071; PubMed=11853398; DOI=10.1006/viro.2001.1273; Chen L.L., Leu J.H., Huang C.J., Chou C.M., Chen S.M., Wang C.H., Lo C.F., Kou G.H.; Independent of a nucleocapsid protein (VP35) gene of shrimp white spot syndrome virus and characterization of the motif important for targeting VP35 to the nuclei of transfected insect cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-20517548; PubMed=11062040; DOI=10.1006/viro.2000.0597; Taai M.F., Yu H.T., Tzeng H.F., Leu J.H., Chou C.M., Huang C.J., Wang C.H., Lin J.Y., Kou G.H., Lo C.F.; Indentification and characterization of a shrimp white spot syndrome virus (WSSV) gene that encodes a novel chimeric polypeptide of cellular-type thymidine knase and thymidylate kinase."; virology 277:100-110(2000).
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MEDLINE=21548311; PubMed=11689662;
DOI=10.1128/VIV.75.23.11811-11820.2001;
Yang F., He J., Lin X., Li Q., Pan D., Zhang X., Xu X.;
"Complete genome sequence of the shrimp white spot bacilliform
Shinose M., Takahashi Y., Horikawa H., Nakazawa H., Osonoe T., Kikuchi H., Shiba T., Sakaki Y., Hattori M.; "Genome sequence of an industrial microorganism Streptomyces avermitilis: deducing the ability of producing secondary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 21; DB 2; Length 68; 100.0%; Pred. No. 7.6e+02;
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Last annotation update)
                                                                                                                                           Proc. Natl. Acad. Sci. U.S.A. 98:12215-12220(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pfam; PF00126; HTH 1; 1. PRINTS, PR00139; HTHLYSR. COMPLETE, PS50931; HTH LYSR; 1. Complete proteome; DNĀ-binding; Transcription;
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                                                                                                                                                                                                                                                                     MEDLINE=22608306; PubMed=12692562;
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1es 4; Conservative
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                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                      metabolites.";
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05-JUL-2004
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EMBL; BX248344; CAD96710.1; ...
Complete protecome; Hypothetical protein.

SEQUENCE 67 AA; 7658 MW; 7E4DC80E86EF73DB CRC64;
      Whitehead S., Barrell B.G.; of Mycobacterium tuberculosis from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=AF2122/97;
MEDLINE=22709107; PubMed=12788972; DOI=10.1073/pnas.1130426100;
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MEDLINE=21477403; PubMed=11572948; DOI=10.1073/pnas.211433198;
Omura S., Ikeda H., Ishikawa J., Hanamoto A., Takahashi C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Corynebacterineae; Mycobacteriaceae; Mycobacterium.
NCBI_TaxID=1765;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Streptomyces avermitilis.
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
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                                                                                                                                                                                                                                                                     100.0%; Score 21; DB 2; Length 67; 100.0%; Pred. No. 7.5e+02; ive 0; Mismatches 0; Indels
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01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein Mb3023c.
OrderedLocusNames=Mb3023c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Putative transcriptional regulator.
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   Sulston J.E., Taylor K., Whitehead S., "Deciphering the biology of Mycobacter complete genome sequence."; Nature 393:537-544(1998).
EMBL; BX842581; CAE55536.1; -... InterPro; IPR009082; His_kin_homodim.
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                                                                                                                                                                                   Complete proteome. SEQUENCE 67 AA;
                                                                                                                                                                                                                                                                                                    Best Local Similarity
Matches 4; Conserv
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
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                                                                                                                                                             STRAIN-VC-16 / DSM 4304 / ATCC 49558;

STRAIN-VC-16 / DSM 4304 / ATCC 49558;

MEDLINES-98049343; PubMed-9389475. DOI-10.1038/37052;

Klenk H.-P., Clayton R.J., Tomb J.-F., White O., Nelson K.E.,

Richardson D.L., Kerlavage A.R., Graham D.E., Kyrpides N.C.,

Rikness E.F., Dougherty B.A., McKenney K., Adams M.D., Loftus B.J.,

Rikness E.P., Dougherty B.A., McKenney K., Adams M.D., Loftus B.J.,

Abou L., Overbeek R., Gocayne J.D., Weidman J.P., McDonald L.A.,

Utterback T.R., Cotton M.D., Spriggs T., Artiach P., Kaine B.P.,

Sykes S.M., Sadow P.W., D'Andrea K.P., Bowman C., Fujii C.,

And Salland S.A., Mason T.M., Olsen G.J., Fraser C.M., Smith H.O.,

Woese C.R., Venter J.C.;

"The complete genome sequence of the hyperthermophilic, sulphate-

reducing archaeoglobus fulgidus.";
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Li L., Bannantine J., Zhang Q., Amonsin A., Alt D., Kapur V.;
Submitted (SEP-2003) to the EMBL/GenBank/DDBJ databases.
BMBL, ABC17231; AASO3707.1; -
InterPro: IPR005651; DUF343.
Pfam, PR03666; DUF343, 1.
Complete proteome.
SEQUENCE 71 AA; 8107 MW; 6160BE6E88B7D768 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OrderedLocusNames=MAP1390;
Mycobacterium paratuberculosis.
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 21; DB 1; Length 71; 100.0%; Pred. No. 7.9e+02;
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                                               Archaea; Euryarchaeota; Archaeoglobi; Archaeoglobalea;
Archaeoglobaceae; Archaeoglobus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Complete proteome, Hypothetical protein.
SEQUENCE 71 AA; 8002 MW; 803C030788157E24 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or send an email to license@isb-sib.ch).
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     OrderedLocusNames=AF0698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nature 390:364-370(1997)
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Best Local Similarity
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                                                                                               NCBI_TaxID=2234;
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SASAYI T., Matsumcto T., Yamamoto K., Sakata K., Baba T., Katayose Y., Mu J., Nimura Y., Cheng Z., Nagamura Y., Antonio B.A., Kanamori H., Hosokawa S., Masukawa M., Arikawa K., Chiden Y., Hayashi M., Camocto M., Ando T., Aoki H., Arita K., Hamada M., Harada C., Kamoto M., Irijima M., Ikeda M., Hijishita S., Honda M., Ichikawa Y., Idohuwa A., Iijima M., Ikeda M., Ikeno M., Itoh S., Itoh Y., Itoh Y., Iwabuchi A., Kamiya K., Karasawa W., Katagiri S., Kikuta A., Kobayashi N., Kono I., Machita K., Machara T., Mizuno H., Mizubayashi T., Mukau Y., Nakamura M., Nagasaki H., Nakashima M., Nakama Y., Nakamichi Y., Nakamura M., Namiki N., Negishi M., Ohta I., Ono N., Saji S., Sakai, K., Shibata M., Shimokawa T., Shomura A., Song J., Takazaki Y., Tarasawa K., Teuji K., Wano H., Yamagata H., Yamane H., Yashiki S., Yoshihara R., Yukawa K., Ano M., Jiang J., Gojobori T.; The Genome sequence and structure of rice chromosome 1.";

EMBL; AP003207; BAB64092.1; -.

REMBL; AP003312; BAC10717.1; -.
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01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
B1157F09-18 protein (P0055H06.4 protein).
Name=B1157F09-18; Synonyms=P0025H06.4;
Oryza sativa (japonica cultivar-group).
Spermatophyta; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopaida; Poales; Poaceae;
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                                                                                                                                                                                                                                                                 0; Indels
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                                                                   Lo C.-F., Kou G.-H.;
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF3122033 AAL33512.1; -.
EMBL; AF440570; AAL88905.1; -.
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70 AA; 8053 MW; 1038D3DE5DEF6AFD CRC64;
                                                                                                                                                                  68 AA; 8104 MW; 61908AE8049D134D CRC64;
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16-OCT-2001 (Rel. 40, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Hypothetical protein AF0698.
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Virology 293:44-53(2002).
                                                                                                                                                                                                                                                                 4; Conservative
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Matches 4; Conserv
                                             SEQUENCE FROM N.A.
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SEQUENCE 70 AA
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16-0CT-2001
16-0CT-2001
25-0CT-2004
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Y698_ARCFU
ID _Y698_ARCFU
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MEDLINE=22484998; PubMed=12597275;
Kaneko T., Nakamura Y., Sato S., Minamisawa K., Uchiumi T.,
Sasamoto S., Watanabe A., Idesawa K., Iriguchi M., Kawashina K.,
Kohara M., Matsumoto M., Shimpo S., Tsuruoka H., Wada T., Yamada M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gb.
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DNA Res. 9:189-197(2002).
EMBL; AP005964; BAC53357.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-22735913; PubMed=12835416; DOI=10.1073/pnas.1431443100; Gloeckner F.O., Kube M., Bauer M., Teeling H., Lombardot T., Ludwig W., Gade D., Beck A., Borzym K., Heitmann K., Rabus R., Schlesner H., Amann R., Reinhardt R.; "Complete genome sequence of the marine planctomycete Pirellula strain I.";
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                                                                                                                                                                                                                                                                                                                                                                                           Bacteria; Planctomycetes; Planctomycetacia; Planctomycetales; Planctomycetaceae; Pirellula.
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Bradyrhizobium japonicum.
Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
Bradyrhizobiaceae; Bradyrhizobium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 21; DB 2; Length 73; 100.0%; Pred. No. 8.2e+02; Live 0; Mismatches 0; Indels
                                                  Length 73;
                                                                                    Indels
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EMBL; BX294141; CAD7B164.1; -
Complete proteome; Hypothetical protein.
SEQUENCE 73 AA; 8367 MW; A49CF28278CD1F01 CRC64;
ll protein.
73 AA; 7735 MW; BBF27A50CC74B3E9 CRC64;
                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
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iive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                      01-OCT-2003 (TrEMBLrel. 25, 01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                           OrderedLocusNames=RB4902;
                                                                 Local Similarity 100.
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                                                                                                                                                                                                                                                                                                                                                                              Rhodopirellula baltica.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                           31 HARL 34
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                                                                                                                          1 HARL 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=117;
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Hypothetical
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                SEQUENCE
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                                                  Query Match
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Gaps
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STRAIN=1330 / Blovar 1;
MEDLINE=22247741; Publed=12271122; DOI=10.1073/pnas.192319099;
Paulsen I.T., Seshadri R., Nelson K.E., Eisen J.A., Heidelberg J.F.,
Read T.D., Dodson R.J., Umayam L.A., Brinkac L.M., Beanan M.J.,
Daugherty S.C., DeBoy R.T., Durkin A.S., Kolonay J.F., Madupu R.,
Nelson W.C., Ayodeji B., Kraul M., Shetty J., Malek J.A.,
Van Aken S.E., Riedmuller S., Tettelin H., Gill S.R., White O.,
Praser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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Name=OSJNBa0025522.12; Synonyms=OJ1134_H03.22;

Name=OSJNBa0025522.12; Synonyms=OJ1134_H03.22;

Eukaryota; Viridiplantea; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "The Brucella suis genome reveals fundamental similarities between animal and plant pathogens and symbionts.";
Proc. Natl. Acad. Sci. U.S.A. 99:13148-13153(2002).
EMBL; AE014375; AAN29617.1; -.
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05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein OSJNBa0025J22.12 (Hypothetical protein
                                                                                                                                                                                                                                                                                                        Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 21; DB 2; Length 72; 100.0%; Pred. No. 8.1e+02; tive 0; Mismatches 0; Indels
 Indels
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Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AP0052545; BAD10172.1;
EMBL; AP003883; BAD08835.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sasaki T., Matsumoto T., Katayose Y.;
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 AA; 7854 MW; C7075427DA31EAE5 CRC64;
                                                                                                                                                                                                                Last sequence update)
Last annotation update)
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                                                                                                                                                             72 AA
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Mismatches
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                                                                                                                                                                                                                                              Hypothetical protein.
OrderedLocusNames=BR0688;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 100.
Matches 4; Conservative
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4; Conservative
                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                             Brucellaceae; Brucella.
NCBL_TaxID=29461;
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                                                                     58 HARL 61
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                                   1 HARL 4
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 Matches
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Cole S.T., Brosch K.T., Parkhill J., Garnier T., Churcher C.M., Harris D.E., Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R.M., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd S., Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Sulston J.E., Taylor K., Whitehead S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; Gomplete genome sequence."; Mycobacterium tuberculosis from the Nature 393:537-544(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOI=10.1128/JB.184.19.5479-5490.2002;
Releischmann R.D., Alland D., Bisen J.A., Carpenter L., White O.,
Reterson J.D., DeBoy R.T., Dodson R.J., Gwinn M.L., Haft D.H.,
Hickey E.K., Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M.D.,
Salaberg S.L., Delcher A., Utterback T.R., Weidman J.F., Khouri H.M.,
Eraser C.M.;
                     Gaps
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                                                                                                                                                                                                                                                                                                                                              Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales; Corynebacterineae; Mycobacteriaceae; Mycobacterium.
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                     Indels
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TIGR; MT1724; -.
TUBerculist; Rv1684; -.
Pfant PPR03966; DUF343.
Pfan; PR03966; DUF343; 1.
SEQUENCE 74 AA; 8289 MW; 84784E241903C263 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-H37Rv;
MEDLINE=98295987; PubMed=9634230; DOI=10.1038/31159;
                                                                                                                                                                                                            033186; Q7D855;
0-JAN-1998 (TrEMBLrel. 05, Created)
01-JA-1998 (TrEMBLrel. 05, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
100.0%; Pred. No. 8.3e+02; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 21; DB 2; I 100.0%; Pred. No. 8.3e+02;
                                                                                                                                                                                             74 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J. Bacteriol. 184:5479-5490(2002).
EMBL; BX842577; CAB10941.1; -.
EMBL; AE000516; AAK45992.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=CDC 1551 / Oshkosh;
MEDLINE=22206494; PubMed=12218036;
                                                                                                                                                                                                                                                                                    Hypothetical protein.
OrderedLocusNames=MT1724, Rv1684;
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                                                                                                                                                                                                                                                                                                                                Mycobacterium tuberculosis.
                   4; Conservative
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Best Local Similarity
Matches 4; Conserv
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                                                                                             39 HARL 42
                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=1773;
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                                                         1 HARL 4
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033186
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PubMed=14970692; DOI=10.1159/000075738;

Van Poucke M., Yerle M., Chardon P., Jacobs K., Genet C.,

Mattheeuwe M., Van Zeveren A., Peelman L.J.;

"A refined comparative map between porcine chromosome 13 and human chromosome 3.";

Cytogenet. Genome Res. 102:133-138 (2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypochetical protein Osjuba0077B15.139.
Name=OSJNBa0077B15.139,
Oryza sativa (japonica cultivar-group).
Bukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Met_zoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae, Sus.
NCBI_TaxID=9823,
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Sasaki T., Matsumoto T., Katayose Y.;
"Oryza sativa nipponbare(GA3) genomic DNA, chromosome 7, BAC
"Lone:OSJNBa0077B15.";
Submitted (UNN-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AP0014731 BAC57359.1; -.
                                                     100.0%; Score 21; DB 2; Length 73; 100.0%; Pred. No. 8.2e+02; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 74;
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                   D79C3EA6D35D55E7 CRC64;
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                                                                                                                                                                                                                                                                                                      05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 21; DB 2; I 100.0%; Pred. No. 8.3e+02;
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                 73 AA; 7881 MW;
                                                                         3est_Local Similarity 100.
4; Conservative
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SEQUENCE 74 AA; 82
 Complete proteome. SEQUENCE 73 AA;
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Best Local Similarity
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                                                                                                                                                                     66 HARL 69
                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa (Pig)
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Matches

RESULT 35

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MEDLINE=22584006; PubMed=12698290; DOI=10.1007/800239-002-2420-3; MEDLINE=22584006; PubMed=12698290; DOI=10.1007/800239-002-2420-3; MEDLINE=22584006; PubMed=12698290; DOI=10.1007/800239-002-2420-3; Dowton M., Castro L.R., Campbell S.L., Bargon S.D., Austin A.D.; Prequent mitochondrial gene rearrangements at the Hymenopteran nad3-nad5 junction."; The ACTIVITY: NaDH + ubiquinone = NAD(+) + ubiquinol.

1. J. MOI. BYOL. 56:517-526(2003).

2. -- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.

2. -- SIMILARITY: Belongs to the complex I subunit 3 family.

EMBL; AF489462; AA049080.1; -- CATALYTIC ACTIVITY: IEA.

BML; AF489462; AA049080.1; -- CATALYTIC ACTIVITY: IEA.

GO; GO:0006137; F:NADH debydrogenase (ubiquinone) activity; IEA.

GO; GO:0006130; F:NADH debydrogenase activity; IEA.

GO; GO:0006130; P:NADH debydrogenase activity; IEA.

GO; GO:0006130; Coidored_q4.

InterPro; IPRO00440; Oxidored_q4.

Mitochondrion; NAD; Oxidored_q4.

Mitochondrion; NAD; Oxidoreductase; Ubiquinone.
                                                                                                                           Bukaryota, Metazoa; Arthropoda, Hexapoda, Insecta; Pterygota;
Neoptera; Endopterygota; Hymenoptera; Tenthredinoidea; Pergidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 21; DB 2; Length 75; 100.0%; Pred. No. 8.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75 AA; 8957 MW; B2BE0CBB347B99CF CRC64;
01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Pred. No.
                                                          NADH dehydrogenase 3 (Fragment)
Perga condei.
Mitochondrion.
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                                                                                                                                                                                               NCBI_TaxID=32411;
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Rodriguez-Inigo E., Casqueiro M., Bartolome J., Ortiz-Movilla N.,
Lopez-Alcorocho J.M., Herrero M., Manzarbeitia F., Oliva H.,
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                                                                                                       Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Corynebacterineae; Mycobacteriaceae; Mycobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 21; DB 2; Length 74; 100.0%; Pred. No. 8.3e+02; tive 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carreno V.; "Detection of TT virus DNA in liver biopsies by in situ hybridization.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Complete proteome. SEQUENCE 74 AA; 8289 MW; 84784E241903C263 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74 AA; 8318 MW; CEE6503663BFDB02 CRC64;
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mypothetical protein Mb1710A.
Name=Mb1710A; ORFNames=Mb1710A;
Mycobacterium bovis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
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EMBL, AF216403; AAF79086.1; -.
INTEXPEO; IPR004219; TTVIXUS_UNK.
PFam; PF02956; TT_ORF1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Viruses; ssDNA viruses; Anellovirus.
NCBI_TaxID=68887;
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hes 4; Conservative
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Q91K63;
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Bukaryota, Viridiplantae; Streptophyta, Embryophyta, Tracheophyta;
Spermatophyta, Magnoliophyta, Liliopsida, Poales; Poaceae; Pooideae;
Triticeae; Hordeum.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75 AA; 7988 MW; 5442D30B9E61057D CRC64;
                 01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Chlorophyll a/b-binding protein (Fragment).
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Local Similarity 100.0%; Pred. No. 8.4e+02;
Les 4; Conservative 0; Mismatches 0;
75 AA
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Q70WA2 Q70WA2;

RESULT 41

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Fiers M.W.E.J., Stiekema W., Klein Lankhorst R.M., Bron P.A.,
Hoffer S.M., Nierop Groot M.N., Kerkhoven R., De Vries M., Ursing B.,
De Vos W.M., Siezen R.J.;
                                                                                                                                                                                                                                                                                                                            Gaps
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Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae;
Ehrhartoideae, Oryzeae, Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Olsen G.J., Sogin M.L.; included lamblia genome."; Draft sequence of the Giardia lamblia genome."; submitted (MAR-2003) to the EMBL/GenBank/DDBJ databases.
-!- CAUTION: The sequence shown here is derived from an EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry which is
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                                                                        "Complete groome sequence of Lactobacillus plantarum WCFS1.";
Proc. Natl. Acad. Sci. U.S.A. 100:1990-1995(2003).
EMBL, AL935253; CAD63277.1; -.
COMPLETE protecome.
SEQUENCE 78 AA; 9282 MW; 37AC50349E21DB7C CRC64:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota; Diplomonadida; Hexamitidae; Giardiinae; Glardia
NCBI_TaxID=184922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 21; DB 2; Length 79; 100.0%; Pred. No. 8.8e+02; ive 0; Mismatches 0; Indele
                                                                                                                                                                                                                                                                                                                            0; Indels
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Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein B1279D09.4 (Hypothetical protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             preliminary data.
EMBL; AACB01000014; EAA41918.1; -.
SEQUENCE 79 AA; 8637 MW; 7C2196274B218609 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                               100.0%; Score 21; DB 2; I 100.0%; Pred. No. 8.7e+02;
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                                                                                                                                                                                                                                                                                                                            0; Mismatches
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Giardia lamblia ATCC 50803.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -1- FUNCTION: Can catalyze the hydrolysis of ATP in the presence of single-stranded DNA, the ATP-dependent uptake of single-stranded DNA by duplex DNA, and the ATP-dependent hybridization of homologous single-stranded DNAs. It interacts with lexA causing its activation and leading to its autocatalytic cleavage (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProDom; PD000229; RecA; 1.
PROSITE; PS50162; RECA_2; 1.
ATP-binding; DNA damage; DNA recombination; DNA repair; DNA-binding;
                                                                                                                                                                                                                                                                                                                Acetobacter diazotrophicus (Gluconacetobacter diazotrophicus).
Bacteria; Proteobacteria; Alphaproteobacteria; Rhodospirillales;
Acetobacteraceae; Gluconacetobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=type strain: LMG 7603;
Marzotto M., Mecchi D., Gastaldelli M., Felis G.E., Torriani S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN-NOIMB 8826 / WCFS1;
MEDLINE-224805956; PubMed-12566566; DOI=10.1073/pnas.0337704100;
Kleereberem M., Boekhorst J., van Kranenburg R., Molenaar D.,
Kulpers O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M.
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Lactobacillus plantarum.
Bacteria; Firmicutes; Lactobacillales; Lactobacillaceae;
Lactobacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dellaglio F.; Submitted (NOV-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               similarity).

EMBL. AJ519465; CAD5020.1.

GO; GO:000524; F:ATP binding; IEA.

GO; GO:000544; F:Gamaged DNA binding; IEA.

GO; GO:000610; F:DNA-dependent ATPase activity; IEA.

GO; GO:0006210; P:DNA recombination; IEA.

GO; GO:0006210; P:DNA repair; IEA.

GO; GO:0006291; P:SOS response; IEA.
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                                                                                                                                                                       (TrEMBLrel. 27, Created)
(TrEMBLrel. 27, Last sequence update)
(TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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Pred. No. 8.5e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                   PRT;
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                                                                                                                                                                                                                                                               Recombinase A (Fragment).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conservative
                                                                                                                   PRELIMINARY;
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Best Local Similarity
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SEQUENCE 76
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05-JUL-2004
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Comover G.M., Derre I I., Vogel J.P., Isberg R.R.;
"The Legionella pneumophila LidA protein: a translocated substrate of the Dot/Icm system associated with maintenance of bacterial
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                                                                                                                                                                                                                                                                                               Gaps
Kohara M., Matsumoto M., Shimpo S., Tsuruoka H., Wada T., Yamada M.,
Tabata S.;
                                                       "Complete genomic sequence of nitrogen-fixing symbiotic bacterium Bradyrhizobium japonicum USDA110.";
DNA Res. 9:189-197(2002).
EMBL; AP005948; BAC48998.1; -.
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
01-MAR-2003 (TrEMBLRENE PROTEIN.
Name-RS00033; OrderedLocusNames-RSC2688;
RAISCOID solanacearum (Pseudomonas solanacearum)
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiaceae; Ralstonia.
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Legionellaceae, Legionella.
NCBI_TaxID=446;
                                                                                                                                                                                                                                          100.0%; Score 21; DB 2; Length 79; 100.0%; Pred. No. 8.8e+02; ive 0; Mismatches 0; Indels
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                                                                                                                                                                                          79 AA; 9132 MW; CFE036408F0CEAF8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               integrity.";
Mol. Microbiol. 48:305-321(2003).
Mol. Microbiol. 48:305-321(2003).
GO; GO:0004540; F:ribonuclease activity; IEA.
GO; GO:000323; F:RNA binding; IEA.
F:RRA PRO0173; RRO1900; Ribonuclease_II.
Pfam; PP00773; RNB; 1.
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Best Local Similarity 100.0.
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                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                       Complete proteome. SEQUENCE 79 AA;
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PubMed=12675793;
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0841N1
AC 0841N1
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DT 01-MA
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GGN NAME=
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CC LEGIO
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CC RESULE
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MEDLINE-2005530; PubMed=10589713;

MEDLINE-2005530; PubMed=10589713;

Pairan Y., Orr E., Ron B.Z., Rosenberg E.;

"Genetic and functional analysis of genes required for the post-
modification of the polyketide antibiotic TA of Myxococcus xanthus.";

Microbology 145:3059-3367(1999).

EMBL; AJ132503; CAB4650.11; --
GO; GO:0048037; R:cofactor binding; IEA.

InterPro; IPR009081; ACP_like.

InterPro; IPR009081; ACP_like.

InterPro; IPR00515; Phappanteth_bind.
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Kaneko T., Nakamura Y., Sato S., Minamisawa K., Uchiumi T.,
Sasamoto S., Matanabe A., Idesawa K., Iriguchi M., Kawashima K.,
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          "Oryza sativa nipponbare(GA3) genomic DNA, chromosome 9, PAC clone:P0523B07.";
Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AP005441; BAD23450.1; -.
BMBL; AP005589; BAD23436.1; -.
Hypothetical protein.
SEQUENCE 79 AA; 9247 MW; F6AA2D0849598632 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteria; Proteobacteria, Deltaproteobacteria; Myxococcales;
Cystobacterineae; Myxococcaceae; Myxococcus.
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Bacteria, Proteobacteria, Alphaproteobacteria, Rhizobiales,
Bradyrhizobiaceae, Bradyrhizobium.
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                                                                                                                                                                                                                       100.0%; Score 21; DB 2; Length 79; 100.0%; Pred. No. 8.8e+02; tive 0; Mismatches 0; Indels
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01-NOV-1999 (TrEMBLrel. 12,
01-MAR-2004 (TrEMBLrel. 26,
Acyl carier protein (ACP)
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OrderedLocusNames=bsr3733;
                                                                                                                                                                                                     4; Conservative
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Matches
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Q89NV1
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                                                                                                                                                                                                                                                                                 53 HARL 56
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Q67W97
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SIMDBOON A.J.G., Reinach F.C., Arruda P., Abreu F.A., Acencio M.,

Alvarenga R., Alvee L.M.C., Arruda P., Abreu F.A., Acencio M.,

A Alvarenga R., Alvee L.M.C., Arruda P., Baia G.S., Baptista C.S.,

A Buenco M.H., Bonaccorsi E.D., Bordin S., Bove J.M., Briones M.R.S.,

B Benco M.R.P., Camargo L.B.A., Carraro D.M., Carrer H.,

Colauto N.B., Colombo C., Costa F.F., Costa M.C.R., Costa-Neto C.M.,

Colauto N.B., Crisofani M., Dias-Neto E., Docena C., El-Dorry H.,

Racincani A.P., Ferreira A.J.S., Ferneira V.C.A., Ferro J.A.,

Racincani A.P., Ferreira A.J.S., Ferneira V.C.A., Ferro J.A.,

Racincani A.P., Ferreira A.J.S., Ferneira W., C.A., Gruber A.,

A Freiger J.S., Kuramae B.E., Laignet F., Lambais M.R., Leite L.C.C.,

A Garnier M., Goldman M.Y.F., Lopes S.A., Lopes C.R., Machado J.A.,

Machado M.A., Madeira A.M.B.N., Madeira H.M.F., Marino C.L.,

Machado M.A., Madeira A.M.B.N., Madeira H.M.F., Marinu C.L.,

Machado M.A., Martins E.A.L., Martins E.M.F., Marinu C.L.,

Marchado M.A., Nascimento A.L.T.O., Netto L.B.S.,

Moon D.H., Nagai M.A., Nascimento A.L.T.O., Netto L.B.S.,

A Nani A. Jr., Nobrega F.G., Miyaki C.Y., Monteiro-Vitorello C.B.,

Peraira G.A.G., Pereira H.A. Ur., Sawasaki H.B.,

A Beixoto D.B.R., Pereira G.A., Pereira H.A. Ur., Pesquero J.B.,

A Duaggio R.B., Roberto P.G., Rodrigues V., de Rosa A.J.M.,

A Silva A.C.R., da Silva A.M., da Silva F.R., Silva W.A., Ur.,

A da Silvara J.F., Silvestri M.L.Z., Siqueira W.J., de Souza A.P.,

A da Silvara A.P., Terenzi M.F., Truffil D., Tsai S.M., Tsuhako M.H.,

Rado M.M., Zatte M., Weidonski-Almeida S., Vettore A.L.,

R. Thha Genome semience of the nlant mathonen Xylella fastidiosa."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                        MEDLINE-21681879; PubMed=11823852; DOI=10.1038/415497a;
A Salanoubat M., Genin S., Artiguenave F., Gouzy J., Mangenot S.,
A ralat M., Bilault A., Brottler P., Camus J.C., Cattolico T.,
A Chandler M., Choisen M., Claudel-Renard C., Cunnac S., Demange N.,
Gaspin C., Lavie Mn., Moisan A., Robert C., Saurin W., Schiex T.,
A Signier P., Thebault P., Whalen M., Wincker P., Levy M.,
Meissenbach J., Boucher C.A.;
Meissenbach J., Boucher C.A.;
I. Mature 415:497-502(2002).
E. EMBL; ALG4671; CAD16395.1; -.
R GGO; GO:0016021; C:integral to membrane; IEA.
Complete proteome; Transmembrane.
Complete proteome; Transmembrane.
SEQUENCE 80 AA; 8473 MW; DD6373F7D6B0CB69 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "The genome sequence of the plant pathogen Xylella fastidiosa.";
Nature 406:151-159(2000).
EMBL; AE003972; AAF84226.1; -.
PIR; F82684; F82684.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bacteria; Proteobacteria; Gammaproteobacteria; Xanthomonadales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 21; DB 2; Length 80; 100.0%; Pred. No. 9e+02; ive 0; Mismatches 0; Indels
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SEQUENCE 80 AA, 8778 MW, 9376F5FBA2D96C7D CRC64;
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Last annotation update)
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(TrEMBLrel. 15, I
(TrEMBLrel. 24, I
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01-OCT-2000 (
01-JUN-2003 (
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"Characterization of ripening-regulated cDNAs and their expression in ethylene-suppressed charentais melon fruit."; Plant Physiol. 12:977-983 (2000).

EMBL; AF206626; AAF64422.1; -.
                                        Gaps
                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
eurosids I; Cucurbitales; Cucurbitaceae; Cucumis.
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Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Lillopsida, Poales, Poaceae,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE-20177879; PubMed=10712562; DOI=10.1104/pp.122.3.977;
Hadfield K.A., Dang T., Guis M., Pech J.-C., Bouzayen M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 21; DB 2; Length 81; 100.0%; Pred. No. 9.18+02; tive 0; Mismatches 0; Indels
  Length 80;
                                        0; Indels
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"Oryza sativa nipponbare(GA3) genomic DNA, chromosome 6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone:P0709F06.";
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AP003712; BAD37572.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
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25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Hypothetical protein P0460H04.9 (Hypothetical protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON TER 1 1
NON TER 81 81
SEQUENCE 81 AA, 8883 MW, 58043AA22FD8D247 CRC64;
                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
100.0%; Score 21; DB 2;
100.0%; Pred. No. 9e+02;
                                        Mismatches
                                                                                                                                                                                                                                                                                                                            Cystathionine-gamma synthase (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=P0460H04.9; Synonyms=P0709F06.30;
                                                                                                                                                                                                                                                              01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last seq
01-MAR-2001 (TrEMBLrel. 16, Last ann
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                                                                                                                                                                                                                                                                                                                                                   Cucumis melo (Muskmelon).
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Gaps

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Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Straubberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.P., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul S.P., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Antschenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Brichards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDILINE-9929947; Pubmed=10369878; DOI=10.1093/hmg/8.7.1313; Gilley J., Fried M.; Gilley J., Fried M.; Extensive gene order differences within regions of conserved synteny between the Fugu and human genees: implications for chromosomal evolution and the cloning of disease genes."; Hum. Mol. Genet. 8:1313-1320(1999).
--- SIMILARITY: Belongs to the UPF0184 (EST00098) family.
 eri 2a: insights into pathogenicity Escherichia coli K12 and O157.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Muscle;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                         100.0%; Score 21; DB 2; Length 82; 100.0%; Pred. No. 9.2e+02; ive 0; Mismatches 0; Indels
                                                                                                                     ProDom; PD015389; Citb; 1.
TIGREMAS; TIGRO1608; citc); 1.
SEQUENCE 2 PA, 9089 WW; B92FC0C6A927808C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nd mouse cDNA sequences.";
roc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                 O9BUW7; Q9Y3F7;
28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Hypotherical UPF0184 protein C9orf16 (EST00098)
Name-C9orf16,
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                   83 AA
"Genome sequence of Shigella flexneri 2a through comparison with genomes of Esche. Nucleic Acids Res. 30:4432-4441(2002). EMBL; AE015084; AAN42178.1; -... GO; GO:0016829; F:lyase activity; IEA. InterPro; IPR006495; CitD.
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MEDLINE=22272406; PubMed=12384590; DOI=10.1093/nar/gkf566;
MIDLINE=22272406; PubMed=12384590; DOI=10.1093/nar/gkf566;
Jún Q., Yaan Z., Xu J., Wang Y., Shen Y., Lu W., Wang J., Liu H., Yang J., Yang F., Zhang X., Zhang J., Yang G., Wu H., Qu D., Dong J., Sun L., Xue Y., Zhao A., Gao Y., Zhu J., Kan B., Ding K., Chen S., Cheng H., Yao Z., He B., Chen R., Ma D., Qiang B., Wen Y., Hou Y., Yu J.;
                                                                                                           Gaps
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Enterobacteriaceae, Shigella.
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                                                                         Length 82;
                                                                                                           Indels
                                                                                                                                                                                                                                                                                        05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Sucrose-6-phosphate hydrolase (EC 3.2.1.26) (Fragment).
Lactobacillus delbrueckii (subsp. lactis).
Bacteris, Firmicutes; Lactobacillales; Lactobacillus.
                       Hypothetical protein.
SEQUENCE 82 AA; 9606 MW; E099FE334B3DCCA6 CRC64;
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01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 25, Last annotation update)
Citrate lyase acyl carrier protein (Gamma chain).
Name=citD; OrderedLocusNames=SF0534;
                                                                     100.0%; Score 21; DB 2; I 100.0%; Pred. No. 9.2e+02; rive 0; Mismatches 0;
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     EMBL; AP003579; BAD37555.1; -.
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nes 4; Conservative
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nes 4; Conservative
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                                                                                                                                                                           HARL 12
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                                                                                                                                             1 HARL 4
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                                                                       Query Match
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Q821B6;
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Q711A9;
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Matches
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MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
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Mus musculus (Mouse).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                               Length 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                             (Potential).
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L -> V (in Ref. 2).
EBEIDOAFAADGDABB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 21; DB 1; I 100.0%; Pred. No. 9.3e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
entities requires a license agreement (Se or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                             Coiled coil; Hypothetical protein.
                                                                           EMBL; BC001857; AAH01857.1; -.
EMBL; BC008897; AAH08897.1; -.
EMBL; Y17450; CAB4434.1; -.
Genew; HGNC:17823; C9orf16.
InterPro; IPR005374; UPP0184.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-FEB-2003 (Rel. 41, Created) 28-FEB-2003 (Rel. 41, Last seq 05-JUL-2004 (Rel. 44, Last ann
                                                                                                                                                                                                                                                      ProDom; PD479232; UPF0184; 1.
                                                                                                                                                                                                                                                                                                                                                                    83 AA; 9054 MW;
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Best Local Similarity
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P58686;
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STRAIN-C57BL/6J; TISSUE-Brain, and Mammary gland;

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Straubberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Nauener R.D., Colling F.S., Wagner L., Shenmen C.M., Schuler G.D.,
Altschul S.P., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altschul R.P., Jozdan H., More T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toohlyuki S., Carrinci P., Prange C.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Broask S.A., McEwan P.J., McKernan R.J., Malk J.J., Hulyk S.W.,
N. Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
N. Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Rachards S., Worley K.C., Hale S., Garcia A.W., Gay L.J., Hulyk S.W.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Schnerch A., Schmitz J., Myers R.M.,
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
T. "Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gape
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=C-125;
MEDLINE=20512582; PubMed=11058132; DOI=10.1093/nar/28.21.4317;
MEDLINE=20512582; PubMed=11058132; DOI=10.1093/nar/28.21.4317;
Takami H., Nakasone K., Takaki Y., Maeno G., Sasaki R., Masui N.,
Fuji F., Hirama C., Nakamura Y., Ogasawara N., Kuhara S.,
Horikoshi K.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
-!- SIMILARITY: Belongs to the UPF0184 (EST00098) family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
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Last annotation update)
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EMBL; BC024615; AAH24615.1; -.
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Coiled coil; Hypothetical protein.
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InterPro; IPR005374; UPF0184.
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OrderedLocusNames=BH1959;
Bacillus halodurans.
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SEQUENCE FROM N.A.
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                                                                       SEQUENCE FROM N.A.
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SEQUENCE
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Q8D434
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SEQUENCE FROM N.A.
MEDLINE=99190418; PubMed=10091997;
Briksson A., Herron J.R., Yamada T., Wheeler C.M.,
"Human papillomavirus type 16 variant lineages characterized by nucleotide sequence analysis of the E5 coding segment and the E2 hinge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                         Gaps
                                                                                                                                                                                                                                                                                                                        "Human papillomavirus type 16 variant lineages in United States populations characterized by nucleotide sequence analysis of the E6, LZ, and L1 coding segments"; ... 'i. virol. 69:7743-7753(1995).
                                                                                                                                                                                                                                                                        [1] SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=96079021; PubMed=7494284;
Yamada T., Wheeler C.M., Halpern A.L., Stewart A.C., Hildesheim A.,
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0
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NCBI_TaxID=1928;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 21; DB 2; Length 83; 100.0%; Pred. No. 9.38+02; ative 0; Mismatches 0; Indels
                                                    Length 83;
                                                                       0; Indels
                                                                                                                                                                                                                              Human papillomavirus type 16.
Viruses; dsDNA viruses, no RNA stage; Papillomaviridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL, AF120704; AAD24032.1; -.
InterPro; IPR004270; Papillona_BS.
Ham; PF0325; Papillona_B5; 11—SEQUENCE 83 AA; 9365 NW; 40612DC9973C38DD CRC64;
                               83 AA; 9977 MW; 1EE8407781E52C20 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q83X83 PRELIMINARY; PRT; 84 AA.
Q83X83;
Q1-JUN-2003 (TrEMBLrel. 24, Created)
O1-JUN-2003 (TrEMBLrel. 24, Last sequence update)
O1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                     01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                   100.0%; Score 21; DB 2; I 100.0%; Pred. No. 9.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probable peptidyl carrier protein.
Streptomyces rochei (Streptomyces parvullus).
Plasmid pSLA2-L.
                                                                                                                                                                    83 AA
                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                region.";
J. Gen. Virol. 80:595-600(1999).
  EMBL; AP001520; BAB07678.1;
                                          Query Match
Best Local Similarity 100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4; Conservative
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       PIR; G84144; G84144.
Complete proteome.
SEQUENCE 83 AA; 99
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Best Local Similarity
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                                                                                                               35 HARL 38
                                                                                             1 HARL 4
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                                                                                                                                                                                                                                                    Papillomavirus
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                                                                                                                                                                                                                      ES protein.
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Matches
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STRAIN=7434N4;
MEDLINE=20231737; PubMed=10767533; DOI=10.1016/S0378-1119(00)00060-3;
MEDLINE=20231737; PubMed=10767533; DOI=10.1016/S0378-1119(00)00060-3;
Suwa M., Sugino H., Sasaoka A., Mori E., Fujii S., Shinkawa H.,
Nimi O., Kinashi H.;
"Identification of two polyketide synthase gene clusters on the linear plasmid pSLAA2-L in Streptomyces rochei.";
Gene 246:123-131(2000).
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                                                                                                                                                                                                                                                                                                                       Hiratsu K., Mochizuki S., Kinashi H.; "Cloning and analysis of the replication origin and the telomeres of the large linear plasmid pSLA3-L in Streptomyces rochei."; the large linear plasmid pSLA3-L in Streptomyces rochei."; Gen. Genet. 263:1015-1021(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-7434AN4;
MEDLINE=99053144; PubMed=9836424;
Kinashi H., Fujii S., Hatani A., Kurokawa T., Shinkawa H.;
Kinashi H., Pujii S., Hatani A., Kurokawa T., Shinkawa H.;
Fuyasical mapping of the linear plasmid pSLA2-L and localization of
the eryal and actI homologs.";
Biosci. Biotechnol. Biochem. 62:1892-1897(1998).
HSSP: 030409; IDNY.
MEDLINE-22676866; PubMed-12791134;
Mochizuki S., Hiratsu K., Suwa M., Ishii T., Sugino F., Yamada K.,
                                                                  Kinashi H.; The large linear plasmid pSLA2-L of Streptomyces rochei has an unusually condensed gene organization for secondary metabolism."; Mol. Microbiol. 48:1501-1510(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=CMCP6;
Rhee J.H., Kim S.Y., Chung S.S., Kim J.J., Moon Y.H., Jeong H.,
Choy H.E.;
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Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AE016813; AAO08362.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84 AA; 8808 MW; F6397B8FCB7A45BB CRC64;
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Last sequence update)
Last annotation update)
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InterPro; IPR009081; ACP_like.
InterPro; IPR006163; Phsppanteth_bind.
InterPro; IPR006162; Ppantne_S.
Pfan; PF00550; PP-binding; 1.
PROSITE; PS50075; ACP_DOMAIN; 1.
PROSITE; PS00012; PHOSPHOPANTETHEINE; UNKNOWN_1.
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MEDLINE=20408175; PubMed=10954087;
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OrderedLocusNames=VV21495;
Vibrio vulnificus.
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Best Local Similarity 100...
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SECUENCE FROM N.A.
MEDLINE=96445133; PubMed=8558127;
MEDLINE=96451313; PubMed=8558127;
Remond M., Sheldrick P., Lebreton F., Nardeux P., Foulon T.;
"Gene organization in the UL region and inverted repeats of the canine herpeavirus genome."
J. Gen. Vixol. 77:37-48 (1996).
EMBL; X90444; CAA62069:1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hallam S.J., Putnam N., Preston C.M., Detter J.C., Rokhsar D., Richardson P.M., DeLong E.F.; "Reverse methanogenesis: testing the hypothesis with environmental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h 100.0%; Score 21; DB 2; Length 85; Similarity 100.0%; Pred. No. 9.5e+02; 4; Conservative 0; Mismatches 0; Indels
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Submitted (AUG-2004) to the EMBL/GenBank/DDBJ databases.
EMBL, AY14859; AAU33915.1; -.
Hypothetical protein.
SEQUENCE 86 AA; 10255 MW; DB87CC9FB2ACD8C1 CRC64;
                                                                                                                                                                                     Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alphaherpesvirinae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          85 AA; 9584 MW; 3DF46D8AAE18ADCF CRC64;
                                                                                                        (TrEMBLrel. 01, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
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Last sequence update)
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                                                                                     Created)
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ORFNames=GZ34A6_26;
uncultured archaeon GZfos34A6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               genomics.";
Science 305:1457-1462(2004).
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                                                                                                                                            Virion protein (Fragment).
Canine herpesvirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF01763; Herpes_UL6;
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                                            PRELIMINARY;
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Best Local Similarity
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01-JUN-2003
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SEQUENCE
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Q649W2
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MEDLINEs_16086851; PubMed=11743194; DOI=10.1126/science.1066803;
Goodner B., Hinkle G., Gattung S., Miller N., Blanchard M.,
Qurollo B., Goldman B.S., Cao Y., Askenazi M., Halling C., Mullin L.,
Houmiel K., Gordon J., Vaudin M., Iartchouk O., Epp A., Liu F.,
Wollam C., Allinger M., Doughty D., Scott C., Lappas C., Markelz B.,
Flanagan C., Crowell C., Gurson J., Lomo C., Sear C., Strub G.,
Glelo C., Slater S.,
"Genome sequence of the plant pathogen and biotechnology agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The genome of the natural genetic engineer Agrobacterium tumefaciens
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Okura V.K., Zhou Y., Chen L., Wood G.E., Almeida N.F. Jr., Woo L.,
Chen Y., Paulsen I.T., Eisen J.A., Karp P.D., Bovee D. Sr.,
Chapman P., Clendenning J., Deatherage G., Gillet W., Grant C.,
Kutyavin T., Levy R., Li M.-J., McClelland E., Pahmieri A.,
Raymond C., Rouse G., Saenphimmachak C., Wu Z., Romero P., Gordon D.
Zhang S., Yoo H., Tao Y., Biddle P., Jung M., Kresppan W., Perry M.,
Gordon-Kamm B., Liao L., Kim S., Hendrick C., Zhao Z.-Y., Dolan M.,
Dester E.W.;
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01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
49-Octobelical protein Atuo376 (ARR C 659p).
OrderedLocusNames-AGR C 659, Atuo376;
Agrobacterium tumefaciens (strain C58 / ATCC 33970).
Bacteria, Proteobacteria, Alphaproteobacteria; Rhizobiales;
Rhizobiaceae; Rhizobium/Agrobacterium group; Agrobacterium.
NCBI_TAXID=17629;
                                                         100.0%; Score 21; DB 2; Length 85; 100.0%; Pred. No. 9.5e+02; ive 0; Mismatches 0; Indels
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Complete proteome; Hypothetical protein. SEQUENCE 85 AA; 9321 MW; F384B3E113DFE876 CRC64;
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PIR; H97404; H97404.
InterPro; IPR009531; DUF1150.
Pfam; PF06620; DUF1150; 1.
PYpOthetical protein; Complete proteome.
SEQUENCE 85 AA; 9466 MW; 518B333B66A33219 CRC64;
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                                                                              Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity
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Martins E.C., Meidanis J., Menck C.F.M., Miyaki C.Y., Moon D.H., Moreira L.M., Novo M.T.M., Okura V.K., Oliveira M.C., Oliveira V.R., Pereira H.A., Rossi A., Sana J.A.D., Silva C., de Souza R.F., Spinola L.A.F., Takita M.A., Tamura R.E., Teixeira E.C., Tezza R.I.D., Trindade dos Santos M., Truffi D., Tsai S.M., White F.F., Setubal J.C., Kitajima J.P., "Comparison of the genomes of two Xanthomonas pathogens with differing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAINSA3(2) / M145;
MEDLINE=21996410; PubMed=12000953; DOI=10.1038/417141a;
MEDLINE=21996410; PubMed=12000953; DOI=10.1038/417141a;
MEDLINE=21996410; PubMed=12000953; DOI=10.1038/417141a;
MINEDLINE=21996410; PubMed=12000953; DOI=10.1038/4.7
Thomson N.R., James K.D., Harris D.E., Quail M.A., Kieser H., Harris D.E., Quail M.A., Kieser H., Howarth S., Chandra G., Chen C.W., Collins M., Huang C.-H., Kieser T., Larke L., Murphy L.D., Oliver K., O'Neil S., Rabbinowitsch E., Rajandream M.A., Rutherford K.M., Rutter S., Seeger K., Saunders D., Sharp S., Squares R., Squares S., Taylor K., Hopwood D.A.;
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Nature 417:141-147(2002).
BMBL; AL939130; CAC689.1; -.
Complete protecome; Hypothetical protein.
SEQUENCE 87 AA; 9955 MW; P0008D1049B11D4B CRC64;
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01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Precoat protein.
Tomato yellow leaf curl virus - Israel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
11-MAR-2003 (TrEMBLrel. 23, Last annotation update)
Hypothetical protein SC07189.
ORFNames=SC8A11.17c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      88 AA.
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                                                                                                                                                                                                                                                host specificities.";
Nature 417:459-463(2002).
EMBL; AE012130; AAM39656.1; -.
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                                                                                                                                                                                                                                                                                                                                            Complete proteome.
SEQUENCE 87 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 HARL 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=1902;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 HARL 4
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DT O01
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SERDINGEACC 33913 / NCPPB 528;
STRAIN-ATCC 33913 / NCPPB 528;
STRAIN-ATCC 33913 / NCPPB 528;
MEDLINE-2202245; Pubmed=12024217; DOI=10.1038/417459a;
da Silva A.C.R., Ferro J.A. Reinach F.C., Farah C.S., Furlan L.R., Quaggio R.B., Monetaro-Vitorello C.B., Van Sluys M.A., Almeida N.F., Quarotte G., Cannavan F., Cardozo J., Chambergo F., Ciapina L.P., Ciarelli R.M.B., Coutlinho L.L., Cursino-Santos J.R., El-Dorry H., Faria J.B., Ferreira R.C.C., Ferro M.I.T., Formighieri E.F., Franco M.C., Greggio C.C., Gruber A., Kabi L.T., Leite R.P., Lemos E.G.M., Lemos M.V.F., Locali E.C., Machado M.A., Madeira A.M.B.N., Martinez-Rossi N.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Saito H., Bruenker P., Martin R., Minas W.;
Submitted (MG-2002) to the Embl.Genbank/DBJ databases.
-!- PTM: 4'-phosphopantetheine is transferred from CoA to a specific
serine of the protein (By similarity).
-!- SIMILMATTY: Contains 1 acyl carrier domain.
EMBL; AF203355; AAG03069.1;
--- HSSP; Q02054; 2AF8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xanthomonas campestris (pv. Campestris).
Bacteria, Proteobacteria; Gammaproteobacteria; Xanthomonadales;
Xanthomonadaceae; Xanthomonas.
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                                                                                                                                                                                                                                                                                                                                                                           Bacteria, Actinobacteria, Actinobacteridae, Actinomycetales,
Streptomycineae, Streptomycetaceae, Streptomyces.
NCBI_TaxID=42684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 21; DB 2; Length 87; 100.0%; Pred. No. 9.7e+02;
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01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Xanthononadin biosynthesis related protein 1.
Name=pigH; OrderedLocusNames=XCC0337;
                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GO; GO: 0000036; F: acyl carrier activity; IEA.
GO; GO: 00040637; F: acyl carrier activity; IEA.
GO; GO: 00046633; F: fatty acid biosynthesis; IEA.
INTERPO; IPRO03031; Acyl carrier.
INTERPO; IPRO0313; PASPanter.
INTERPO; IPRO06162; Panter.
INTERPO; IPRO06162; Panter.
Propan; PRO0560; PP-binding; 1.
PRODOM; PRO00887; Acyl carrier; 1.
PROSITE; PSSO072; ACP_GOMAIN; 1.
PROSITE; PSO0012; PHOSPHOPANTETHEINE; 1.
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                                                                                                                                                                                     Created)
                                                                                                                        PRT;
                                                                                                                                                                               01-MAR-2001 (TrEMBLrel. 16, 01-MAR-2001 (TrEMBLrel. 16, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 100.
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                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                       Streptomyces collinus
                                                                                                                                                                                                                                                                                         Acyl carrier protein.
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SEQUENCE 87 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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Matches
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Q8PDJ9
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RAY Vasconcelos A.T.R., de Almeida D.F., Dollaria C. Guimaraes C.T., RA Astolica E. C., de Almeida D.F., de Anacida R.C.; de Almeida D.F., de Anacida R.C.; de Almeida D.F., de Anacida R.C.; de Almeida D.F., de Araujo M.F.F., RA Astoli-Filho S., Azevedo V., Baptista A.J.; Bataus L.A.M.; Batista J.S., Belo A., van den Berg C., Bogo M., Bonatto S., Rocdignon J., Brigdo M.M.; Brico C.A., Brocchi M., Burity H.A., RA Canargo A.A., Cardoso D.D.P., Carneiro N.P.; Fararo D.M., Canardo D.D.P., Carneiro N.P.; Fararo D.M., Carcaro D.M., Carcaro D.M., Cavada B.S., Chueire L.M.O., RA Fantinatti F., Farias I.P., Felipa M.S.A., Furlan L.R., Ferro J.A., Gones B.A., Goncalves P.R., Grangeiro T.B., Gratapaglia D., Grisard E.C., Hanna E.S., Jardim S.N., Laurino J., RA Grattapaglia D., Grisard E.C., Hanna E.S., Jardim S.N., Laurino J., RA Leoi L.C.T., Lima L.F.A., Loureiro M.F., Lyra M.C.C.P., Martins W.S., Ai Madeira H.M.F., Manfio G.P., Maranhao A.Q., Martins W.S., Ai Macimento F.F., Nicolas M.P., Oliveira J.G., Oliveira S.C., Parente J.A., Pedrosa F.O., Pena S.D.J., Pereira J.O., RA Famalho-Neto C.E., Reis A.M.M., Rigo L.U., Rondinelli E., Santos F.R., Santos F.R., Santos F.R., Santos F.R., Santos F.R., Santos E.B., Santos R.R., Souza E.M., Souza K.R.L., RA Souza R.C., Steffens M.B.R., Standel M.P., Silva A.J., Santos R.B.A., Santos R.R., Souza E.M., Souza K.C., Steffens M.B.R., Standel M.P., Santos R.R., Santos R.B., Santos R.R., Santos R.B., Santos R.B., Santos R.B., Santos R.R., Santos R.B., Santos R.B., Santos R.B., Santos R.R., Santos R.R., Santos R.R., Santos R.R., Santos R.R., Santos R.R., Santos R.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chitteranjan S., Radomski C.C., Chow M.L., Davies J., Axelrood P.E., "Retrieval of novel DNA sequences encoding xylanase-like genes from British Columbia forest soils.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P07986; IEXP. GO:0016798; F:hydrolase activity, acting on glycosyl bonds; IEA. GO:0005975; P:carbohydrate metabolism; IEA.
                   MEDLINE=22882880; PubMed=14500782; DOI=10.1073/pnas.1832124100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Radomski C.C.A., Seow K.T., Warren R.A.J., Yap W.H.; "Method for isolating xylanase gene sequences from soil DNA, compositions useful in such method and compositions obtained
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 21; DB 2; Length 89; 100.0%; Pred. No. 1e+03; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases. EMBL; AF4274CZ; AAP87520.1; -. HSSP; P07986; 1EXP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; ABUldalu, Anglini.
Complete proteome; Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
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NON TER 1 1
NON TER 89 89
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Conservative
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Matches 4; Conserv
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                                                                                      Peterschmitt M., Granier M., Aboulama S.; "First report of tomato yellow leaf curl Geminivirus virus in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Li L., Bannantine J., Zhang Q., Amonsin A., Alt D., Kapur V.; Submitted (SEP-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AE017241; AAS06551.1; ---
Complete proteome; Hypothetical protein.
SEQUENCE 89 AA; 9817 MW; B21FA3E5F31E7C4D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mycobacterium paratuberculosis.
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Corynebacterineae; Mycobacteriaceae; Mycobacterium.
NCBI_TaxID=1770;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria, Proteobacteria, Betaproteobacteria, Neisseriales,
Neisseriaceae, Chromobacterium.
                                                                                                                                                                                                                                                                                                                                    100.0%; Score 21; DB 2; Length 88; 100.0%; Pred. No. 9.8e+02; ive 0; Mismatches 0; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 21; DB 2; Length 89; 100.0%; Pred. No. 1e+03;
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                                                                                                                                                                                                                                                                                                  88 AA; 10378 MW; 32D149F7EB0F9C39 CRC64;
                                                                                                                                           Plant Dis. 83:1074-1074(1999).

EMBL, AJ133491; CAB38575.1; -.

GO; GO:0019028; C:viral capsid; IEA.

GO; GO:005198; F:structural molecule activity; IEA.

InterPro; IPR00251; Gemini VI.

ProDom; PF01524; Gemini VI; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation update)
Viruses; ssDNA viruses; Geminiviridae; Begomovirus.
NCBI_TaxID=66366;
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Last annotation update)
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STRAIN=ATCC 12472 / DSM 30191;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-2004 (TrEMBLrel. 26, 01-MAR-2004 (TrEMBLrel. 26, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OrderedLocusNames=MAP4001;
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                                                                                                                                                                                                                                                                                                                                                                             4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
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Best Local Similarity
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Matches 4; Conserv
                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                1 HARL 4
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                                                                                                                                                                                                                                                                                 Coat protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=k10;
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STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                     01-NOV-1996 (TrEMBLrel. 01,
01-JAN-1998 (TrEMBLrel. 05,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hypothetical protein.
OrderedLocusNames=PA2292;
                                                                                   4; Conservative
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nes 4; Conservative
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                                                                                                                                                                                                                                                                                     Caenorhabditis elegans.
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                                                                       Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                           67 HARL 70
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                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=6239;
                                                                                                            1 HARL 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                               Cournoyer B.;
"Analysis of pFQ31, a 8551-bp cryptic plasmid from the symbiotic nitrogen-fixing actinomycete Frankia.";
FEMS Microbiol. 197:111-116(2001).
EMBL; AJ297945; CAC39346.1;
Hypothetical protein; Plasmid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Facceriophage APSE-1.
Viruses; dsDNA viruses, no RNA stage; Caudovirales; Podoviridae.
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                                                                                                                                                                                                                                                           Bacteria, Actinobacteria, Actinobacteridae, Actinomycetales,
Frankineae, Frankiaceae, Frankia.
NCBI_TaxID=1858;
                      / Match 100.0%; Score 21; DB 2; Length 89; Local Similarity 100.0%; Pred. No. 1e+03; nes 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 21; DB 2; Length 92; 100.0%; Pred. No. 1e+03; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                  Lavire C., Louis D., Perriere G., Briolay J., Normand P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                        92 AA; 10054 MW; B6A0D4F13CF6FED8 CRC64;
89 AA; 10346 MW; 5983DD37183C210F CRC64;
                                                                                                                                                                                                 Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Putative protein P44.
                                                                                                                                                              92 AA
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MEDLINE=21184415; Pubmed=11287155;
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01-DEC-2001 (TrEMBLrel. 19,
01-MAR-2004 (TrEMBLrel. 26,
Hypothetical procein.
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Matches 4; Conserv
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Plasmid pFQ31
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SEQUENCE
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VP44_BPAPS
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Rhabditidae, Peloderinae, Caenorhabditis.
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Pseudomonadaceae; Pseudomonas.
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                                                                                    Score 21; DB 1; Length 93;
Pred. No. 1e+03;
; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Genome sequence of the nematode C.elegans: A platform for investigating biology.";
Science 282:2012-2018(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 21; DB 2; Length 93; 100.0%; Pred: No. 1e+03;
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STRAIN=ATCC 15692 / PAO1;
MEDLINE=20437337; PubMed=10984043; DOI=10.1038/35023079;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matthews L.;
Submitted (JUN-1996) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; Z75512; CAA99803.1; -. PIR; T20227; T20227. WormBase; WGCeneO0008319; C54G10.1. WormBase; V54G10.1; CE05516. WormCep; C54G10.1; CE05516. Blypothetical protein. SEQUENCE 93 AA; 10885 MW; C00F5DC1515DE15B CRC64;
EMBL; AF157835; AAF03987.1; -.
Hypothetical protein.
SEQUENCE 93 AA; 10356 MW; B7EEE57CB8BB3C63 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2003 (TrEMBLrel. 05, Last sequence update) Hypothetical protein C54G10.1.
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Last annotation update)
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0; Mismatches
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Bacteria; Deinococcus-Thermus; Deinococci; Thermales; Thermaceae;
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                                                                                            Suzuki S., Hatanaka H., Hondoh T., Okumura A., Kuroda Y
Kuramitsu S., Shibata T., Inoue Y., Yokoyama S.;
Submitted (NOV-2002) to the PDB data bank.
GO; GO:00016776; F.nucleic acid binding; IEA.
GO; GO:0016779; F.nucleotidyltransferase activity; IEA.
                                                                                                                                                                                                                             95 AA; 10582 MW; F8B4497E00977B7E CRC64;
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Job time : 173 secs
                                                                               STRUCTURE BY NMR
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                                         NCBI_TaxID=274;
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Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Warrener P., Hickey M.J., Brinkman F.S.L., Hufnagle W.O., Kowalik D.J., Lagrou M., Garber R.L., Golter Y., Tolentino E., Westbrock-Waddman S., Yuan Y., Smroth K.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M., Reizer J., Spencer D.H., Wong G.K.-S., Wu Z., Paulsen I.T., Reizer J., Saler M.H., Hancock R.E.W., Lory S., Olson M.V.; "Complete genome sequence of Pseudomonas aeruginosa PAOI, an opportunistic pathogen.";
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MBDLINE=22480296; PubMed=12566566; DOI=10.1073/pnas.0337704100;
Kleerebezem M., Boekhorst J., van Kranenburg R., Molenaar D.,
Kuipers O.P., Leer R., Tarchini R., Peters S.A., Sandbrink H.M.,
Fiers M.W.E.J., Stiekems W., Klein Lankhoret R.M., Bron P.A.,
Hoffer S.M., Nierop Groot M.N., Kerkhoven R., De Vries M., Ursing
De Vos W.M., Siezen R.J.;
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Proc. Natl. Acad. Sci. U.S.A. 100:1990-1995(2003).
EMBL, AL935259; CAD64718.1; -.
COMPLETE proteome.
SEQUENCE 94 AA; 10941 MW; D7AA030959373E55 CRC64;
                                                                                                                                                                                                                                                                                                                                 100.0%; Score 21; DB 2; Length 93; 100.0%; Pred. No. 1e+03; ive 0; Mismatches 0; Indels
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Query Match

Best Local Similarity 100.0%; Pred. No. 1.1e+03;

Matches 4; Conservative 0; Mismatches 0; Indels
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Bacteria; Firmicutes; Lactobacillales; Lactobacillaceae;
Lactobacillus.
                                                                                                                                                                                   PIR; E83358; E83358. DUB971.
InterPro; IPRO10376; DUB971.
InterPro; IPRO10886; ER target_S.
Pfam; PF06155; DUP971; I.
PROSITE; PS06014; ER TARGET; UNKNOWN 1.
COMDLETE POTCEOME: HYDOLDETICAL POTCHEIN.
SEQUENCE 93 AA; 10732 MW; A38541EC2F12AF22 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Prophage Lp2 protein 47.
OrderedLocusNames=lp_2410;
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01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Putative Nucleocidyltransferase.
Thermus thermophilus.
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                                                                                                                                                 Nature 406:959-964(2000).
EMBL; AE004655; AAG05680.1; -.
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Best Local Similarity 100.
Matches 4; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                              31 HARL 34
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35591, P 50808, A 4900, Ap 16539, A 5595, Ap 238, App 238, App 238, App 238, App

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5478, Ap 4, Appli 18229, Ap 11756, A 11756, A 29, Appl 15984, A 15984, A 15984, A 15984, A 15984, A 15984, A

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54302, A 40960, A 56176, A 194, App 18704, A 37264, A

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24838, A 1900, App 1900, App 1901, App 1902, App 1903, App

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1497, Ap 29957, A 26, Appl 24838, A

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US-09-107-532A-5045

US-09-107-532A-5045

US-09-107-532B-29

US-09-107-522-991A-1870

US-09-270-767-56176

US-09-270-767-56176

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US-09-270-767-5618

US-09-270-767-5618

US-09-270-767-5618

US-09-270-767-5618

US-09-252-991A-29957

US-09-186-250-4

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US-09-517-358A-4

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Sequence 6, Appl
Sequence 8, Appli
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Sequence 108, Appl
Sequence 108, Appl
Sequence 108, Appl
Sequence 4733, Appl
Sequence 6, Appli
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Sequence 6, Appli
Sequence 4185, Ap
Sequence 6961, Ap
Sequence 6961, Ap
Sequence 6561, Ap
Sequence 5561, Ap
Sequence 11065, A
Sequence 11065, A
Sequence 7516, Ap
Sequence 2311, Ap
Sequence 2311, Ap
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108, App
23, Appl
4733, Ap
6, Appli
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6, Appli
6, Appli
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                                                                              5, 2005, 16:26:37; Search time 42 Seconds (without alignments) 7.109 Million cell updates/sec
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1. /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
         GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
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US-10-161-499-66
US-08-399-646-8
US-08-607-321-8
US-08-961-240-8
US-08-961-240-8
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US-08-951-151A-108
US-09-551-151A-108
US-09-551-151A-108
US-09-621-976-4733
US-09-621-976-4733
US-09-982-610-6
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US-09-621-976-6961
US-09-621-976-5664
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US-09-621-976-5664
US-09-621-976-516
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                                                                                                                                                                                                                       513545 segs, 74649064 residues
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                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 100 summaries
                                                                                                                                 COPY_292_295
                                                         protein search, using sw model
                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                        seq length: 0
seq length: 200000000
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                                                                                                                                            Perfect score:
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Maximum DB
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       Sequence 66, Application US/09347504; Patent No. 6399075; GENERAL INFORMATION:
APPLICANT: Howley, Peter M.
APPLICANT: Howley, Pater M.; APPLICANT: CASUKawa, Hiroaki; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING; TITLE OF INVENTION: PAPILLOMAVIRUS-INFECTED CELLS; FILE REFERENCE: HWV-041.01; CURRENT APPLICATION NUMBER: US/09/347,504; CURRENT FILING DATE: 1999-07-02; NUMBER OF SEQ ID NOS: 79; SOFTWARE: Patentin Ver. 2.1; SEQ ID NO 66; LENGTH: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 66, Application US/10161499
; Sequence 66, Application US/10161499
; Patent No. 6673354
; GENERAL INNORMATION:
APPLICANT: Howley, Peter M.
; APPLICANT: Benenon, John
; APPLICANT: Rasukawa, Hiroaki
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
; TITLE OF INVENTION: PAPILLOMAVIRUS-INFECTED CELLS
; FILE REFERENCE: HAV-041.01
; CURRENT PILLION DATE: 2002-06-03
; PRIOR APPLICATION NUMBER: US/09/347,504
; PRIOR FILLING DATE: 2002-06-03
; PRIOR FILLING DATE: 2002-06-03
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h Similarity 100.0%; Score 21; DB 4; Length 15; Similarity 100.0%; Pred. No. 45; 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
100.0%; Score 21; DB 3; Length 15;
Best Local Similarity 100.0%; Pred. No. 45;
Matches 4; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
COTHER INFORMATION: M36A
US-10-161-499-66
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: M36A
US-09-347-504-66
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                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
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Best Local Similarity
Matches 4; Conserv
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-09-347-504-66
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US-10-161-499-66
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RESULT 3 US-08-399-646-8

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; Sequence 8, Application US/08399646;
; Patent No. 5556781
; GENERAL INFORMATION:
; APPLICANT: KUBOTA, Michio
; APPLICANT: TSUSAKI, Keiji
APPLICANT: HATTORI, Kazuko
; APPLICANT: HATTORI, Kazuko
; TITLE OF INVENTION: DNA BNICOING ENZYME, RECOMBINANT DNA AND
TITLE OF INVENTION: BNZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W., Suite 300
; CITY: Washington
; STRIE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
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TITLE OF INVENTION: DNA ENCODING ENZYME, RECOMBINANT DNA AND
TITLE OF INVENTION: ENZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND THE CORRESPONDENCE ADDRESSEES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/399,646
FILING DATE: 07-MAR-1995
RILING DATE: 07-MAR-1994
FILING DATE: 07-MAR-1994
FILING DATE: 07-MAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: BROWDY, ROGER L.
RAGGISTRATION NUMBER: 25.618
REGISTRATION NUMBER: 25.618
REGISTRATION NUMBER: 25.618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: BROWDY AND NEIMARK
419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KUBOTA=5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 8, Application US/08607321; Patent No. 5716813; GENERAL INFORMATION: APPLICANT: KUBOTA, Michio APPLICANT: TSUGSKI, Keiji APPLICANT: HATTORI, Kazuko APPLICANT: SUGIMOTO, TOShiyuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKGT NUMBER: KT
TELECOMMUNICATION INFORMATION
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERESTICS:
LENGTH: 17 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Matches 4; Conservative
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               / MOLECULE TYPE: peptide US-08-399-646-8
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APPLICANT: KUBOTA, Michio
APPLICANT: TSUGAKI, Keiji
APPLICANT: HATTORI, Kazuko
APPLICANT: HATTORI, Kazuko
TITLE OF INVENTION: DNA ENCODING ENZYME, RECOMBINANT DNA AND
TITLE OF INVENTION: ENZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2; Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/605,501
FLING DATE: 26-FEB-1996
CLASSIFICATION DATA:
APPLICATION NUMBER: US 08/399,646
FILING DATE: 07-MAR-1995
APPLICATION NUMBER: US 08/399,646
FILING DATE: 07-MAR-1994
PRIOR APPLICATION NUMBER: JP 59834
FILING DATE: 07-MAR-1994
PRIOR APPLICATION NUMBER: JP 59840
FILING DATE: US MAR-1994
FILING DATE: US MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
CORRESPONDENCE STREET: BROWDY AND NEIMBER
STREET: Washington
CITY: Washington
CITY: D.C.
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                     CLASSIFICATION: 435

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/399,646
FILING DATE: 07-MAR-1995
APPLICATION NUMBER: UP 59834
FILING DATE: 07-MAR-1994
PRIOR APPLICATION DATA: UP 59840
ATORNEY AGENT INFORMATION:
NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
REFERENCE/DOCKET NUMBER: X5MOTA=5
TELECHONE: 202-638-5197
TELECHONE: 202-638-5197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 8, Application US/08605501
Patent No. 5834287
GENERAL INFORMATION:
       30-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 248633
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single;
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-961-240-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
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APPLICANT: TSUSAKI, Keiji
APPLICANT: TSUSAKI, Kazuko
APPLICANT: HATTORI, Kazuko
APPLICANT: SUGIMOTO, TOShiyuki
TITLE OF INVENTION: DNA BNCODING ENZYME, RECOMBINANT DNA AND
TITLE OF INVENTION: ENZYME, TRANSFORMANT, AND THEIR PREPARATIONS AND USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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CITY: Washington
STATE: 0.C.
COUNTRY: USA
ZIP: 20004
COMPUTER READABLE FORM:
MEDTUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentl N. Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/961,240
                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: TBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/607,321
FILING DATE: 26-FEB-1996
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/399,646
FILING DATE: 07-WAR-1995
APPLICATION NUMBER: UP 59834
FILING DATE: 07-WAR-1994
PRIOR APPLICATION NUMBER: UP 59840
FILING DATE: 07-WAR-1994
ATTORNEY/AGENT INFORMATION:
NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 18
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 8, Application US/08961240 Patent No. 5830715 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: KI
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0%;
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TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , MOLECULE TYPE: peptide US-08-607-321-8
Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
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Gaps

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GENERAL ISTA-108

Sequence 108, Application US/09551151A

Patent No. 6803358

GENERAL INFORMATION:
TITLE OF INVENTION: Variant of Cancer,
TITLE OF INVENTION: Viral or Parasitic Infections
TITLE OF INVENTION: Viral or Parasitic Infections
TITLE OF INVENTION: Viral or Parasitic Infections
CURRENT APPLICATION NUMBER: US/09/551,151A

CURRENT PILING DATE: 1900-04-14

PRIOR FILING DATE: 1999-10-29
NUMBER OF SEQ ID NOS: 142

SEQ ID NO 108

LENGTH: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Mutant preproricin linker region for MMP-11, pAP-284
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                                                               100.0%; Score 21; DB 4; Length 31; 100.0%; Pred. No. 94;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 23, Application US/08870518
Fatent No. 592556
GENERAL INFORMATION:
APPLICANT: Davis, Roger J.
TITLE OF INVENTION: NON-ACTIVATED RECEPTOR COMPLEX
TITLE OF INVENTION: PROTEINS AND USES THEREOF
NUMBER OF SEQUENCES: 35
CORRESPONDENCES ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OCHEVIER 150 Windows95
OCHEVIER 150 Windows95
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/870,518
FILING DATE: 06-JUN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/019,219
FILING DATE: 06-JUN-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 100.
Matches 4; Conservative
                                                                  Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                      20 HARL 23
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      US-09-403-752A-108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE:
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US-09-403-752A-108

US-09-403-752A-108

SEQUENCE 108, Application US/09403752A

PACENT NO. 6593132

GENERAL INFORMATION:

TITLE OF INVENTION: VIRAL OR PARASITIC INFECTIONS

FILE REFERENCE: 10447-005

CURRENT APPLICATION NUMBER: U.S. 60/045,148

PRIOR FILING DATE: 1999-10-29

PRIOR FILING DATE: 1997-04-30

PRIOR FILING DATE: 1997-04-30

PRIOR FILING DATE: 1997-10-29

NUMBER OF SEQ ID NOS: 142

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 108

LENGTH: ALL OF THE OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Homburger et al.
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
TITLE OF INVENTION: Nucleic 3326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 58361
LENGTH: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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ORGANISM: Mutant preproricin linker region for MMP-11, pAP-284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h
Similarity 100.0%; Score 21; DB 2; Length 17;
Similarity 100.0%; Pred. No. 51;
4; Conservative 0; Mismatches 0: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 21; DB 4; Length 25; 100.0%; Pred. No. 76; ative 0; Mismatches 0; Indels
NAME: BROWDY, ROGER L.
REGISTRATION NUMBER: 25,618
RESPERENCE, DOCKET NUMBER: KUBCTA=5
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-270-767-58361
; Sequence 58361, Application US/09270767
; Patent No. 6703491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Drosophila melanogaster US-09-270-767-58361
                                                                                                                                                            TELEFAX: 202-737-3528
TELEX: 248633
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 aming acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 4; Conserva
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APPLICANT: DECACA:
APPLICANT: Matthews, William
APPLICANT: Matthews, William
APPLICANT: Matthews, William
APPLICANT: Wood, William II
TITLE OF INVENTION: PROTEIN TYROSINE KINASE AGONIST ANTIBODIES
NUMBER OF SEQUENCES: 45
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                    MEDIUM TYPES 5.25 inch, 360 Kb floppy disk COMPUTER: 1EM PC compatible OPERATION SYSTEM: PC-005/MS-DOS SOFTWARE: patin (Generatech)
CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/222,616
FILING DATE: 4-APR-1994
CLASSIFICATION: 530
PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: 07/826935
FILING DATE: 22-JAN-1993
PRIOR APPLICATION NUMBER: 07/826935
FILING DATE: 22-JAN-1992
ATTORNEY/AGENT INFORMATION: NAME: Lee, Wendy M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
100.0%; Score 21; DB 1; I
Best Local Similarity 100.0%; Pred. No. 1.6e+02;
Matches 4; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 94080
COMPUTER READBALE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/446,648
                                                                                                                                                                                                                                                                                                                                                                NAME: Lee, Wendy M.
REGISTRATION NUMBER:
REFERENCE/DOCKET NUMBER: 821P2
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-446-648-6
; Sequence 6, Application US/08446648
; Patent No. 6331302
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/222616
FILING DATE: 04-APR-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genentech, Inc.
Bennett, Brian D.
Goeddel, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 53 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 415/952-9881
           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 21; DB 4; Length 52; 100.0%; Pred. No. 1.6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 6, Application US/08222616

Patent No. 5635177

GENERAL INFORMATION:
APPLICANT: Bennett, Brian D.
APPLICANT: Goeddel, David
APPLICANT: Lee, James M.
APPLICANT: Teal, Siao Fing .
APPLICANT: Wood, William
APPLICANT: Wood, William I.
ITILE OF INVENTION: APROFEIN TRROSINE KINASE AGONIST
ITILE OF INVENTION: ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-621-976-4733

US-09-621-976-4733

Sequence 4733, Application US/09621976

Patent No. 6639063

APPLICANT: Dumas Milne Edwards, J.B.

APPLICANT: Jobert, S.

TITLE OF INVENTION: ESTS and Encoded Human Proteins.

TITLE OF INVENTION: ESTS and Encoded Human Proteins.

CURRENT APPLICATION NUMBER: US/09/621,976

CURRENT FILING DATE: 2000-07-21

SOFTWARE: Patent.pm

SEQ ID NO 4733

LENGTH: 52

TENGTH: 52
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                              04020/102001
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
REGISTRATION NUMBER: 32,983
REFERENCE/DOCKET NUMBER: 0402
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617/542-5070
TELEFAX: 617/542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 23:
SEQUENCE CHARACTERISTICS:
LENGTH: 51 amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                    4; Conservative
                                                                                                                                                                                                                                              , MOLECULE TYPE: peptide US-08-870-518-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRGANISM: Homo sapiens
US-09-621-976-4733
                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 4; Conserv
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US-08-222-616-6
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APPLICANT: Genentech, Inc.
APPLICANT: Bennett, Brian D.
APPLICANT: Goeddel, David
APPLICANT: Goeddel, David
APPLICANT: Tea, James M.
APPLICANT: Tea, Siac Ping
APPLICANT: Wood, William I.
TITLE OF INVENTION: PROTEIN TYROSINE KINASE AGONIST ANTIBODIES
NUMBER OF SEQUENCES: 45
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 21; DB 5; Length 53; 100.0%; Pred. No. 1.6e+02; ive 0; Mismatches 0; Indels
                  100.0%; Score 21; DB 4; Length 53; 100.0%; Pred. No. 1.6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/222616
FILING DATE: 04-APR-1994
ATTORNEY/AGENT INFORMATION:
NAME: Wendy M. Lee
REGISTRATION NUMBER: 00,000
REPERSINCE/DOCKET NUMBER: 921R3PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1994
                                                                                                                                                                                                                                                                                                                                                                                                                      45

ADDRESS:
SIRET: Genentech, Inc.
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/04228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4185, Application US/09621976; Patent No. 6639063; APPLICANT: Dumas Milne Edwards, J.B. APPLICANT: Johert, S.
                                                                                                                                                                                                                                         ; Sequence 6, Application PC/TUS9504228 ; GENERAL INFORMATION:
Query Match
Best Local Similarity 10v...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
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TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
TOPOLOGY: linear
PCT-US95-04228-6
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41 HARL 44
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                                                                                                     1 HARL 4
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                                                                                                                                                                                                                           PCT-US95-04228-6
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LOGUEL, DAVIEL

MATCHOWN, William

TRAIL SIAO PING

WOO', William I.

TITLE OF INVENTION: PROTEIN TYROSINE KINASE AGONIST ANTIBODIES

NUMBER OF SEQUENCES: 45

CORRESPONDENCE ADDRESS:

ADDRESSEE: Genentech, Inc.

STREET: SOUTH San Bruno Blvd

CITY: SOUTH SOUTH SAN Francisco

STATE: California
                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                        100.0%; Score 21; DB 3; Length 53; 100.0%; Pred. No. 1.6e+02;
                                                                                                                                                                                                                                                                                                                              0; Indels
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: P0821P3PCT TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/982,610
FILING DATE: 17-Oct-2001
CLASSIPICATION: <UNKnown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/446,648
ELLING DATE: 1996-MAY-23
APPLICATION NUMBER: 08/222616
FILING DATE: 04-APR-1994
ATTORNEY/AGENT INPORMATION:
NAME: Lee, Wendy M.
REGISTRATION NUMBER: 40,378
NAME: Lee, Wendy M.
REGISTRATION NUMBER: 40,378
REFERENCE/DOCKET NUMBER: P0821P3PCT
TELECOMUNICATION INFORMATION:
TELEPHONE: 415/225-1994
TELEFAX: 415/952-9881
TELEFAX: 910/371-7168
INFORMATION FOR SEQ IN NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 53 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: Linear
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6, Application US/09982610
Patent No. 6673343
GENERAL INFORMATION:
APPLICANT: Genentech, Inc.
Bennett, Brian D.
Goeddel, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: 415/952-994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 53 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
                                                                                                                                                                                                        TYPE: Amino Acid
TOPOLOGY: Linear
                                                                                                                                                                                                                                                                                                                                                                                                              41 HARL 44
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Gaps

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Sequence 6561, Application US/09134000C

Patent No. 6617156

Patent No. 6617156

GENERAL INTERNATION:

APPLICANT: LYND DOUGETE-Stamm et al

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO

TITLE OF INVENTION: ENTERCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION: BYTERCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT APPLICATION NUMBER: US/09/134,000C

CURRENT FILING DATE: 1998-08-13

PRIOR APPLICATION NUMBER: US 60/055,778

PRIOR PLING DATE: 1997-08-15

NUMBER OF SEQ ID NOS: 6812

SOFTWARE: Patentin version 3.1

SEQ ID NO 6561
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                                                                                                                                                                                       Length 55;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Glochano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SEQ ID NO 6943
LENGTH: 62
                                                                                                                                                                                     100.0%; Score 21; DB 4; I 100.0%; Pred. No. 1.7e+02;
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100.0%; Pred. No. 1.9e+02;
tive 0; Mismatches 0;
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100.0%; Score 21; DB 4; I
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 4; Conservative 0; Mismatches 0;
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         NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 7554
LENGTH: 55
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Best Local Similarity 100.
Matches 4; Conservative
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                                                                                             TYPE: PRT; ORGANISM: Homo sapiens
US-09-513-999C-7554
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US-09-621-976-6943
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Best Local Similarity
Matches 4; Conserv
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Batent No. 6783961
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Duclert, A.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
Patent No. 6783961
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 6961, Application US/09621976

Patent No. 6639063

GRUERAL INFORMATION:
APPLICANT: Unas Milne Edwards, J.B.
APPLICANT: Glochet, S.
APPLICANT: Glochano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054RR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT APPLICATION NUMBER: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
APPLICANT: Giordano, J.Y.

TITLE OF INVENTION: ESTS and Encoded Human Proteins. FILE REFERENCE: GENSET.054PR2

CURRENT APPLICATION NUMBER: US/09/621,976

CURRENT FILING DATE: 2000-07-21

NUMBER OF SEQ ID NOS: 19335

SOFTWARE: Patent.pm

SEQ ID NO 4185

LENGTH: 55
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CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 2000-02-24
PRIOR PELICATION NUMBER: US 60/122,487
PRIOR FILING DATE: 1999-02-26
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US-09-621-976-6961
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity
Matches 4; Conserv
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US-09-621-976-4185
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Sequence 7516, Application US/09513999C

Patent No. 6783961

GENERAL INFORMATION:
APPLICANT: Dunas Milne Edwards, J.B.
APPLICANT: Dunclert, A.
APPLICANT: Dunclert, A.
TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
Patent No. 6783961

FILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C

CURRENT FILING DATE: 2000-02-24

FRIOR APPLICATION NUMBER: US 60/122,487

PRIOR FILING DATE: 1999-02-26

NUMBER OF SEQ ID NOS: 36681
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                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2311, Application US/09640211A

Patent No. 683346
GENERAL INFORMATION:
APPLICANT: Wood, Marion
APPLICANT: Shenk, Michael A.
APPLICANT: McGrath, Annette
TITLE OF INVENTION: Compositions and Methods for the
TITLE OF INVENTION: Modification of Gene Transcription
FILE REFERENCE: 11000.1021C1U
CURRENT APPLICATION NUMBER: US/09/640,211A
CURRENT APPLICATION NUMBER: US/09/640,211A
CURRENT FILE OF WINDOWS 2368
SOFTWARE: FastSEQ for Windows Version 4.0
APPLICANT: Jobert, S.
APPLICANT: Gordano, J.Y.
TITLE OF INVENTION: EST8 and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING ADTE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 4233
LENGTH: 66
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Best Local Similarity 100.0
The 4; Conservative
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                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                     , LOCATION: -20..-1
US-09-621-976-4233
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53 HARL 56
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Patent No. 6610836
GENERAL INFORMATION:
APPLICANT: Gary Breton et. al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: PREUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 2709-2004001
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 11065
LENGTH: 66
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                                                                                                                                                      GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: JODENT, S.
APPLICANT: JODENT, S.
APPLICANT: JOSEN, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REPERENCE: GENSET OSSAPE, JOSEN, CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: PAECHL.PM
SEQ ID NO 5664
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US-09-621-976-4233
US-09-621-976-4233
Sequence 4233. Application US/09621976
Parent No. 6639063
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
                                                                                                              Sequence 5664, Application US/09621976
Patent No. 6639063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; LOCATION: -18
; OTHER INFORMATION: Xaa = Lys,Gln
US-09-621-976-5664
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ORGANISM: Klebsiella pneumoniae
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Best Local Similarity 100.
Matches 4; Conservative
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46 HARL 49
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LOCATION: -61..-1
NAME/KEY: UNSURE
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    HARL 47
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US-09-489-039A-11065
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    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Jobert, S.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENERI OS4PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SEQ ID NO 6749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6818, Application US/09621976

Patent No. 6639063

GENERAL INFORMATION:
APPLICANT: Johest, S.
APPLICANT: Johest, S.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REPERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976

CURRENT PILING DATE: 2000-07-21

NUMBER OF SEQ ID NOS: 19335

SOFTWARE: Patent.pm
    0; Mismatches
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; Sequence 6749, Application US/09621976
; Patent No. 6639063
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COCATION: 35
COTHER INFORMATION: Xaa = Ile, Val
US-09-621-976-6818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4; Conservative
    4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-621-976-6749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                 44 HARL 47
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                                           1 HARL 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: UNSURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 29
US-09-621-976-6818
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LENGTH: 77
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    Matches
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APPLICANT: Keith Weinstock et al

APPLICANT: Keith Weinstock et al

TITLE OF INVERTION: UCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICAN

TITLE OF INVENTION: POR DIAGNOSTICS AND THERAPEUTICS

FILE REFERENCE: 107196.132

CURRENT APPLICATION NUMBER: US/09/248,796A

CURRENT PILING DATE: 1999-02-13

PRIOR APPLICATION NUMBER: US 60/074,725

PRIOR APPLICATION NUMBER: US 60/096,409

PRIOR RILING DATE: 1998-08-13

PRIOR FILING DATE: 1998-08-13
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                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 21; DB 4; Length 74; 100.0%; Pred. No. 2.3e+02; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                         DB 4; Length 72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6140, Application US/09621976

APPLICANT: Unmam Milne Edwards, J.B.

APPLICANT: Glordano, J.Y.

TITLE OF INVENTION: ESTS and Encoded Human Proteins.

FILE REPERENCE: GENSET.054PR2

CURRENT APPLICATION UNMBER: US/09/621,976

CURRENT FILING DATE: 2000-07-21

NUMBER OF SEQ ID NOS: 19335

SEQ ID NO 6140

LENGTH: 77
                                                                                                                                                                                                                     100.0%; Score 21; DB 4; F
100.0%; Pred. No. 2.2e+02;
tive 0; Mismatches 0;
                                                                                                                                                                 or Leu or Trp
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 28060, Application US/09248796A Patent No. 6747137
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                                                                                                                   NAME/KEY: UNSURE
LOCATION: 63
COTHER INFORMATION: Xaa= *
US-09-513-9996-7516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Beet Local Similarity 100.
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                                                                                                                                                                                                                       Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-09-621-976-6140
                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
SOFTWARE: Patent.pm
                                                                                                                                                                                                                                                                                                                                            45 HARL 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 52 HARL 55
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                  SEQ ID NO 7516
LENGTH: 72
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Polypeptides Involved In The
Biosynthesis Of Streptogramins, Nucleotide Sequences
Coding For These Polypeptides And Their Use
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APPLICANT: Debussche, Laurent
APPLICANT: De Crecy-Lagard, Valerie
APPLICANT: De Crecy-Lagard, Valerie
TITLE OF INVENTION: Biosynthesis Of Streptogramins, Nucleotide f
TITLE OF INVENTION: Coding For These Polypeptides And Their Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
    TITLE OF INVENTION: Polypeptides Involved In The TITLE OF INVENTION: Blosynthesis Of Streptogramins, Nucleoti TITLE OF INVENTION: Coding For These Polypeptides And Their NUMBER OF SEQUENCES: 43
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner STREET: 1300 I Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 45
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
STREET: 1300 I Street, N.W., Suite 700
CITY: Washington
STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 21; DB 2; Length 82; 100.0%; Pred. No. 2.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                              MEDIUM TIPE: FIOPY GIBE
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
CONTURES: ABLENTIN Belease #1.0, Version #1.30
SUSTAMES: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/403,852D
FILING DATE: 10-MAY-1995
FILING DATE: 25-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PR 92/11441
FILING DATE: 25-SEP-1992
ATTORNEY/AGENT INFORMATION:
NAME: MAYOREY Kenneth J.
REGISTRATION NUMBER: 25,146
REGISTRATION FORCET UNMBER: 25,146
REGISTRATION FORCET UNMBER: 25,146
RELEFAX: (202) 408-4400
INFORMATION FOR SEQ ID NO: 27: SEQUENCE CHARACTERISTICS:
LENGTH: #2 amino acids
LENGTH: #2 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 28, Application US/08510646B; Patent No. 6077699
GENERAL INFORMATION:
APPLICANT: Blanc, Veronique
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Crouzet, Joel
Jacques, Nathalie
Lacroix, Patricia
Thibaut, Denis
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Blanche, Francis
                                                                                                                                                                                       STATE: D.C.
COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-403-852D-27
                                                                                                                                                                    CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            46 HARL 49
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APPLICANT:
APPLICANT:
APPLICANT:
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APPLICANT:
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US-09-902-540-12919
is Sequence 12919, Application US/09902540
is Sequence 12919.
GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Gladman, Barry S.
APPLICANT: Stater, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Waxococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(15849)B
CURRENT APPLICATION NUMBER: US/09/902,540
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION TUMBER: 60/217,883
PRIOR FILING DATE: 2000-07-10
NUMBER: OF SEQ ID NOS: 16825
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                        APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Jobert, S.
APPLICANT: Glordano, J.Y.
FITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: PATENT. PM
                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 21; DB 4; I 100.0%; Pred. No. 2.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
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Patent No. 5891695
GENERAL INFORMATION:
APPLICANT: Blanc, Veronique
APPLICANT: Blanche, Francis
APPLICANT: Crouzet, Joel
APPLICANT: Lacroix, Patricia
APPLICANT: Lacroix, Patricia
APPLICANT: Lacroix, Denia
APPLICANT: Thibaut, Denia
APPLICANT: Debussche, Laurent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Thibaut, Denis
Zagorec, Monique
Debussche, Laurent
De Crecy-Lagard, Valerie
                          Sequence 6853, Application US/09621976
Patent No. 6639063
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Myxococcus xanthus
US-09-902-540-12919
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
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Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                          ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-621-976-6853
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LENGTH: 79
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                                                                                                                                                                                                                                                                                                        SEQ ID NO 6853
LENGTH: 77
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Biosynthesis Of Streptogramins, Nucleotide Sequences Coding For These Polypeptides And Their Use
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: D.C.
COUNTRY: USA
ZIP: 20005-3315
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/635,359B
FILING DATE: 09-Aug-2000
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 21; DB 3; ]
Pred. No. 2.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 43
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabov
STREET: 1300 I Street, N.W., Suite 700
CITY: Washington
                                                                                                                                                                                                                                               NAME: Meyers, Kenneth J.
REGISTRATION NUMBER: 25,146
FEFERENCE/POCKET NUMBER: 03806.0054-00000
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 09/231,818
FILING DATE: 15-7AN-1999
APPLICATION NUMBER: US 08/403,852
FILING DATE: 10-MAX-1995
                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/403,852
FILING DATE: 10-MAY-1995
APPLICATION NUMBER: PCT/FR 93/00923
FILING DATE: 25-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 92/11441
FILING DATE: 25-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       De Crecy-Lagard, Valeri
TITLE OF INVENTION: Polypeptides I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 27, Application US/09635359B Patent No. 6670157 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Debussche, Laurent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Blanche, Francis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Monique
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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                                                                                                                                                                                                                                                                                                                                    TELEPHONE: (202) 408-4000
TELEFAX: (202) 408-4400
INFORMATION FOR SEQ ID NO: 27:
SEQUENCE CHARACTERISTICS:
LENGTH: 82 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acid
STRANDEDNESS: single
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      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Crouzet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
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-09-635-359B-27
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APPLICANT: Debussche, Laurent
APPLICANT: De Crecy-lagard, Valerie
TITLE OF INVENTION: Polypeptides Involved In The
TITLE OF INVENTION: Biosynthesis of Streptogramins, Nucleotide Sequences
TITLE OF INVENTION: Coding For These Polypeptides And Their Use
TITLE OF SEQUENCES: 43
CORRESPONDENCE ADDRESS:
ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Finnegan, Henderson, Farabow, Garrett & Dunner
STREET: 1300 I Street, N.W., Suite 700
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0, Indels
                                       COMPUTER: IBM PC Compatible
COMPATION SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/510,646B
FILING DATE: 03-AUG-1995
CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 21; DB 3; 1
100.0%; Pred. No. 2.5e+02;
ative 0; Mismatches 0;
                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/403,852
FILING DATE: 10-MAY-1995
FILING DATE: 20-MAY-1995
FILING DATE: 25-SEP-1993
FILING DATE: 25-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 92/11441
FILING DATE: 25-SEP-1992
ATTORNEY/AGENT INPORMATION:
NAME: MAYORAFION:
NAME: MAYORAFION:
NAME: MAYORAFION NUMBER: 25,146
REGISTRATION NUMBER: 25,146
REGISTRATION NUMBER: 25,146
TELEPHONE: (202) 408-4400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 27, Application US/09231818 Patent No. 6171846 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jacques, Nathalie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lacroix, Patricia
Thibaut, Denis
Zagorec, Monique
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (202) 408-4400
INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
LENGTH: 82 amino acida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Blanc, Veronique
Blanche, Francis
Crouzet, Joel
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: D.C
COUNTRY: U
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APPLICANT:
APPLICANT:
APPLICANT:
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Gaps

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ORGANISM: Drosophila melanogaster
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Matches 4; Conserv
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-09-107-532A-5045
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Patent No. 6703491
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                            NAME: Meyers, Kenneth J.
REGISTRATION NUMBER: 25,146
RECISTRATION NUMBER: 25,146
RECISTRATION NUMBER: 03806.0054-03000
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 408-4000
TELEFAX: (202) 408-4400
INFORMATION FOR SEQ ID NO: 27:
SEQUENCE CHARACTERISTICS:
LENGTH: 92 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Jobert, S.
APPLICANT: Jobert, S.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 21; DB 4; 100.0%; Pred. No. 2.5e+02;
APPLICATION NUMBER: PCT/FR 93/00923
FILING DATE: 25-58P-1993
APPLICATION NUMBER: FR 92/11441
FILING DATE: 25-SEP-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                             TOPOLOGY: linear SEQUENCE DESCRIPTION: SEQ ID NO: 27: US-09-635-359B-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6714, Application US/09621976
Patent No. 6639063
PARERAL INFRMATION:
APPLICANT: Dumas Milne Edwards, J.B.
                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                             TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens
US-09-621-976-6714
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LENGTH: 87
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LENGTH: 83
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Sequence 5045, Application US/09107532A
Patent No. 6583275
GENERAL INFORMATION:
APPLICANT: Lynn A Doucette-Stamm and David Bush
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
ENTEROCOCCUS FAECIUM FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
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                                                                 100.0%; Score 21; DB 4; Length 87; 100.0%; Pred. No. 2.7e+02;
                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 7310
CORRESPONDENCE ADDRESS:
ADDRESSES: GENOME THERAPEUTICS CORPORATION
STREET: 100 Beaver Street
CITY: Waltham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: ASCII
CURRENT APPLICATION DATA:
PLING DATE: 30-Jun-1998
FILING DATE: 30-Jun-1998
FILING DATE: 10-Jun-1998
FILING DATE: 14 May 1998
FILING DATE: 14 May 1998
APPLICATION NUMBER: 60/051571
FILING DATE: July 2, 1997
ATTORNEY/AGENT INFORMATION:
; OTHER INFORMATION: Xaa means any amino acid US-09-270-767-43031
                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc feature
LOCATION: (B) LÕCATION 1...89
SEQUENCE DESCRIPTION: SEQ ID NO: 5045:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Ariniello, Pamela Deneke
REGISTRATION NUMBER: 40,489
REFERENCE/DOCKET NUMBER: GTC-012
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Enterococcus faecium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: CD/ROM ISO9660
COMPUTER: PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: (781)893-5007
TELEFAX: (781)893-8277
INFORMATION FOR SEQ ID NO: 5045:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 89 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: YES
ORIGINAL SOURCE:
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                                                  Query Match
Best Local Similarity 100.0
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Gaps
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                                                                                                                                                                        Length 91;
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ORGANISM: herpes simplex virus type 1 (HSV1)
NAME/KEY: peptide of HSV1 gene US10 polypeptide
LOCATION: 192 TO 282
OTHER INFORMATION: peptide homologous to the US10 gene
OTHER INFORMATION: polypeptide of MDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY: peptide of HSV1 gene US10 polypeptide
LOCATION: 192 TO 282
OTHER INFORMATION: peptide homologous to the US10 gene
OTHER INFORMATION: polypeptide of MDV
                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 10, Application US/07736335E
; Patent No. 6087127
; GENERAL INFORMATION:
    APPLICANT: Leland F. Velicer, Peter Brunovskis,
    TITLE OF INVENTION: Marek's Disease Herpesvirus
    NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
    ADDRESSEE: Ian C. McLeod
    STREET: 2190 Commons Parkway
    CITY: Okemos
                                                                                                                                                                        100.0%; Score 21; DB 2; I 100.0%; Pred. No. 2.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: herpes simplex virus type 1 (HSV1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Diskette, 5.25 inch, 1.2 Mb
COMPUTER: IBM PS2, Model 50
OPERATING SYSTEM: MS-DOS 5.0
                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/07/736,335E
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FRAGMENT TYPE: internal fragment
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Tan C. McLood
REGISTRATION NUMBER: 20,931
REFERENCE/DOCKET NUMBER: MSU
TELECOMMUNICATION INFORMATION:
TELEPHONE: (517) 347-4100
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 91 amino acids
                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PC-Write 3.02
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/
FILING DATE: July 25, 1991
                                                                                                                                                    Query Match
Best Local Similarity 100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Okemos
STATE: Michigan
COUNTRY: USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 89;
                                                       Sequence 4499, Application US/09621976
| Patent No. 6639063
| Patent INFORMATION:
| APPLICANT: Unas Milne Edwards, J.B.
| APPLICANT: Glordano, J.Y.
| TITLE REFERENCE: GENSET. 054PR2
| CURRENT FILICHON NUMBER: US/09/621,976
| CURRENT PILICED NUMBER: 2000-07-21
| NUMBER OF SEQ ID NOS: 19335
| SOFTWARE: Patent.pm
| SEQ ID NO 4499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-047-125-10
Sequence 10, Application US/09047125
Patent No. 5976787
GENERAL INFORMATION:
APPLICANT: Leland F. Velicer, Peter Brunovskis,
TITLE OF INVENTION: Marek's Disease Herpesvirus
NUMBER OF SEQUENCES: 34
CORRESSEDNUBNUE ADDRESS:
ADDRESSEE: Ian C. McLeod
STREET: 2190 Commons Parkway
                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 21; DB 4; 100.0%; Pred. No. 2.7e+02;
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COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 1.2 Mb
COMPUTER: IBM PS2, Model 50
OPERATING SYSTEM: MS-DOS 5.0
SOFTWARE: PC-Write 3.02
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/047,125
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
707/36,335
FILING DATE: July 25, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Ian C. McLeod
REGISTRATION NUMBER: 20,931
REFERENCE/DOCKET NUMBER: MSU 4.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: peptide
FRAGMENT TYPE: internal fragment
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEBHONE: (317) 347-4100
TELEPAX: (517) 347-4103
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 91 amino acida
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
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STATE: Michigan
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 4; Conserv
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                                            US-09-621-976-4499
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Gaps

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100.0%; Score 21; DB 4; Length 100; 100.0%; Pred. No. 3.1e+02;
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Fatent No. 6639063
GENURAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENEET. 054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: PATECHT.PM
SEQ ID NOS: 5955
                                                                                                                                                 ; OTHER INFORMATION: Xaa=Leu or Pro or Gln or Arg
US-09-513-999C-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Myxococcus xanthus
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 4900
LENGTH: 93
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Best Local Similarity 100.0
Matches 4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
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ORGANISM: Homo sapiens
                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                28 HARL 31
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                                                                                                                NAME/KEY: UNSURE LOCATION: 45
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                                                                                                  FEATURE
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Patent No. 6703491

Patent No. 6703491

GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094

CURRENT APPLICATION NUMBER: US/09/270,767

CURRENT FILING DATE: 1999-03-17

NUMBER OF SEQ ID NOS: 62217

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 50808

LENGTH: 93
                                                                                          Sequence 35591, Application US/09270767

Patent No. 6703491

GENERAL INFORMATION:

APPLICANT: Homburger et al.

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REPERENCE: File Reference: 7326-094

CURRENT APPLICATION NUMBER: US/09/270,767

CURRENT APPLICATION DATE: 1999-03-17

NUMBER OF SEQ ID NOS: 62517

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 35591

LENGTH: 93
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                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 21; DB 4; Length 93; 100.0%; Pred. No. 2.9e+02; ative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                               , ORGANISM: Drosophila melanogaster US-09-270-767-35591
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
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               30 HARL 33
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                                                                                US-09-270-767-35591
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Gaps

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GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PATEORIIN Ver. 2.0
SEQ ID NO 34879
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TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
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APPLICANT: Webb, Donna J.

TITLE OF INTERNATION: Transforming Growth Factor-beta Binding Site FILE REFERENCE: 00370-02

CURRENT APPLICATION NUMBER: US/09/311,352B

CURRENT PILING DATE: 1999-05-13

NUMBER OF SEQ ID NOS: 6

SOFTWARE: Patentin Ver. 2.1
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                         Indels
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100.0%; Pred. No. 3.5e+02;
      Pred. No. 3.3e+02;
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100.0%; Pred. No. 3.5e+02;
iive 0; Mismatches 0;
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                         Mismatches
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US-09-270-767-34879
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ORGANISM: Drosophila melanogaster
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100.0%;
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity 100.
                         4; Conservative
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ORGANISM: Homo sapiens
  Best Local Similarity
Matches 4; Conserv
                                                                                                    45 HARL 48
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                                                            1 HARL 4
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US-09-270-767-50096
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US-09-311-352B-2
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Patent No. 6620923
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: SPECHT, THOMAS
APPLICANT: SCHMITT, ARMIN
APPLICANT: PILARSKY, CHRISTIAN
APPLICANT: PILARSKY, ANDRE
APPLICANT: ROSENTHAL, ANDRE
TITLE OF INVENTION: HUMAN NUCLEIC ACID SEQUENCES FROM UTERUS TUMOR TISSUE
PILE REFERENCE: ALBRE-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No. 6703491
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT PILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOPTWARE: PatentIn Ver. 2.0
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US-09-270-767-57430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/673,395A CURRENT FILING DATE: 2000-10-17 NUMBER OF SEQ ID NOS: 637 SOFTWARE: PARENTIN Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 57430, Application US/09270767
                LOCATION: 54

OTHER INFORMATION: Xaa = Asp, Asn,
NAME/KEY: UNSURE

LOCATION: -14,50,56

OTHER INFORMATION: Xaa = Gly, Val,
NAME/KEX: UNSURE

LOCATION: 33

OTHER INFORMATION: Xaa = Phe, Ser
US-09-621-976-5595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                     Query Match
Best Local Similarity 100...
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US-09-673-395A-238
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Best Local Similarity
Matches 4; Conserv
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85 HARL 88
    NAME/KEY: UNSURE
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US-09-270-767-57430
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LENGTH: 108
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Sequence 8424, Application US/09949016
; Sequence 8424, Application US/09949016
; Patent No. 681239
; GENERAL INFORMATION:
; APPLICANT: VBYTER, US/09941SENSE, METHODS OF DETECTION AND USES THEREOF
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; TURRENT PELLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR APPLICATION NUMBER: 60/231,768
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR PILING DATE: 2000-10-03
; PRIOR PILING DATE: 2000-0-0-03
; PRIOR PELING DATE: 2000-0-0-03
; PRIOR SELICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-0-0-03
; PRIOR PELING DATE: 2000-0-0-03
; PRIOR SELICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-0-10-03
; PRIOR SELICATION NUMBER: 60/231,498
; PRIOR PLING DATE: 2000-0-10-03
; PRIOR PLING DATE: 2000-0-10-03
; PRIOR PLING DATE: 2000-0-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR PLING DATE: 2000-0-10-03
; PRIOR PRIOR DATE: 2000-0-10-03
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Sequence 18229, Application US/09252991A

Patent No. 6551795

GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: MUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
FILLE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 18229
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100.0%; Score 21; DB 4; Length 118;
Best Local Similarity 100.0%; Pred. No. 3.6e+02;
Matches 4; Conservative 0; Mismatches 0; Indels
                                                                         ; Score 21; DB 4; Length 115; 
; Pred. No. 3.5e+02; 
0; Mismatches 0; Indels
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ilarity 100.0%; Pred. No. 3.6e+02;
Conservative 0; Mismatches 0;
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US-09-252-991A-18229
; ORGANISM: Streptomyces anulatus
US-09-266-965-4
                                                                                      100.0%;
                                                             Query Match
Best Local Similarity 100.
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Matches 4; Conserv
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ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-949-016-8424
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APPLICANT: Gary L. Breton et al.
APPLICANT: Gary L. Breton et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
TITLE OF INVENTION: BUJMANNII FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC99-03PA
CURRENT APPLICATION NUMBER: US/09/328,352
CURRENT FILING DATE: 1999-06-04
NUMBER OF SEQ ID NOS: 8252
SEQ ID NO 5478
LENGTH: 114
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Sequence 10. 6495348

GENERAL INFORMATION:
APPLICANT: Sherman, D
APPLICANT: Waco Y
APPLICANT: Waco Y
APPLICANT: Waco IU, M
APPLICANT: Ho, M
APPLICANT: Sheldon, P
TILE OF INVENTION: Bitonycin biosynthetic gene cluster
TILE OF INVENTION: Bitonycin biosynthetic gene cluster
TILE OF INVENTION: Bitonycin biosynthetic gene cluster
TILE OF INVENTION NUMBER: US/09/266,965
CURRENT APPLICATION NUMBER: US 08/624,447
EARLIER FILING DATE: 1996-08-19
EARLIER FILING DATE: 1994-10-06
EARLIER APPLICATION NUMBER: US 08/133,963
EARLIER APPLICATION NUMBER: US 08/133,963
EARLIER APPLICATION NUMBER: US 08/133,963
EARLIER PILING DATE: 1994-10-06
EARLIER OF SEQ ID NOS: 145
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
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100.0%; Pred. No. 3.5e+02;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: Xaa means any amino acid
US-09-270-767-50096
                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
   CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 50096
LENGTH: 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 5478, Application US/09328352 Patent No. 6562958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Acinetobacter baumannii
US-09-328-352-5478
                                                                                                                                                                                                              ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100..
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Best Local Similarity luv...
4; Conservative
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Sequence 29, Application US/08793624C

Patent No. 6150093

GENERAL INFORMATION

APPLICANT: Chang, Yuan

APPLICANT: Chang, Yuan

APPLICANT: Moore, Patrick S.

TITLE OF INVENTION: Unique Associated Kaposi's Sarcoma Virus Sequences And

TITLE OF INVENTION: Uses Thereof

FILE REFERENCE: 45185-C-PCT-US/JPW

CURRENT APPLICATION UNMBER: US/08/793,624C

CURRENT PILING DATE: 1997-02-18

NUMBER OF SEQ ID NOS: 58

SEQ ID NO 29

LENGTH: 120
              APPLICANT: MOOFE, PALTICK S.
TITLE OF INVENTION: UNIQUE ASSOCIATED KAPOSI'S SARCOMA VIRUS
TITLE OF INVENTION: SEQUENCES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 120;
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100.0%; Pred. No. 3.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , ORGANISM: Kaposi's sarcoma-associated herpesvirus
US-08-793-624-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                              NUMBER OF SEQUENCES: 47
CORRESPONDENCE ADDRESS:
COADER SERE: Cooper & Dunham LLP
STREET: 1185 Avenue of the Americas
                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: RIOPDY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/420,235B
                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAMB: White, John P.
REGISTRATION NUMBER: 28,678
REPERENCE/DOCKET NUMBER: 45185
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 391-0525
INFORMATION FOR SEQ ID NO: 29;
SEQUENCE CHARACTERISTICS:
LENGTH: 120 amino acids
TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4; Conservative
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    Chang, Yuan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                           CITY: New York
STATE: New York
COUNTRY: U.S.A.
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Matches 4; Conserv
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Best Local Similarity
Matches 4; Conserv
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                                                                                                              Sequence 11756, Application US/09902540

Sequence 11756, Application US/09902540

Patent No. 683347

GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Glodman, Barry S.
APPLICANT: Slater, Steven C.
APPLICANT: Slater, Steven C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof;
FILE REFERENCE: 38-10(15849)B

CURRENT APPLICATION NUMBER: US/09/902,540

CURRENT FILING DATE: 2001-07-10

PRIOR PLLING DATE: 2000-07-10

PRIOR PLLING DATE: 2000-07-10

NUMBER OF SEQ ID NOS: 16825

SEQ ID NO 11756

LENGTH: 118
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 4734, Application US/09621976
Patent No. 6639063
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Glordano, J.Y.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET. 054PR2
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 4734
LENGTH: 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 21; DB 4; 1 100.0%; Pred. No. 3.7e+02;
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US-08-420-235B-29
; Sequence 29, Application US/08420235B
; Patent No. 5801042
; GENERAL INFORMATION:
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; OTHER INFORMATION: Xaa = Arg,Thr
US-09-621-976-4734
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT
; ORGANISM: Myxococcus xanthus
US-09-902-540-11756
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Best Local Similarity 100.
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Best Local Similarity 100.
Matches 4; Conservative
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ORGANISM: Homo sapiens
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22 HARL 25
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100.0%; Pred. No. 3.7e+02; tive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: Mycobacterium leprae
US-09-732-210-663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.0
These 4; Conservative
Best Local Similarity 100.
Matches 4; Conservative
                                                                                       100 HARL 103
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Sequence 29, Application PC/TUS9510194

Sequence 29, Application PC/TUS9510194

Sequence 29, Application

REMERAL INFORMATION:

APPLICANT: The Trustees of Columbia University in the City of New York

APPLICANT: City

TITLE OF INVENTION: SQUENCES AND USES THEREOF

TITLE OF INVENTION: SQUENCES: 45

CORRESPONDENCE ADDRESS:

ADDRESSEE: Cooper & Dunham LLP
                                                                                  GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Goldman, Barry S.

APPLICANT: Glater, Steven C.

TITLE OF INVENTION: Wyxcococus xanthus Genome Sequences and Uses Thereof

FILE REFERENCE: 38-10(15849)B

CURRENT APPLICATION NUMBER: US/09/902,540

PRIOR APPLICATION NUMBER: 05/01-07-10

PRIOR APPLICATION NUMBER: 05/217,883

PRIOR FILING DATE: 2000-07-10
                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 21; DB 4; Length 120; 100.0%; Pred. No. 3.7e+02; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: U.S.A.

ZIP: 10036

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.25
CURRENT APPLICATION DATA:
PTLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: Cooper & Dunham LLP
STREET: 1185 Avenue of the Americas
CITY: New York
                                                     Sequence 15984, Application US/09902540 Patent No. 6833447
                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Myxococcus xanthus US-09-902-540-15984
                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 15984
LENGTH: 120
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; MOLECULE TYPE: protein
PCT-US95-10194-29
                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: New York COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68 HARL 71
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                                      -09-902-540-15984
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DB 5;

100.0%; Score 21;

Query Match

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Patent No. 6703491

GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REPRENCE: File Reference: 7386-094

CURRENT APPLICATION NUMBER: US/09/270,767

CURRENT PILING DATE: 1999-03-17

NUMBER OF SEQ ID NOS: 62317

SOUTHER PATENTALION OF SEQ ID NOS: 62317

SEQ ID NO 39085

LENGTH: 131

HUNGTH: 131
Sequence 663, Application US/09732210

Batent No. 6573361

BAENERAL INFORMATION:
APPLICANT: Bunkers, Greg J.
APPLICANT: Liang, Jihong
APPLICANT: Mittanck, Cindy A.
APPLICANT: Mittanck, Cindy A.
APPLICANT: Wu, Younie S.
ITLE OF INVENTION: AALI-fungal Proteins and Methods for Their Use
FILE REPERENCE: 38-21(15036)B
CURRENT APPLICATION NUMBER: US/09/732,210
CURRENT FILING DATE: 1999-12-07
PRIOR PILING DATE: 1999-12-07
PRIOR PILING DATE: 1999-12-07
PRIOR PILING DATE: 1999-12-07
NUMBER OF SEQ ID NOS: 1753
SEQ ID NOS: 1753
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; Sequence 54302, Application US/09270767
; Patent No. 6703491
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Tue Jul

Pred. No. 4.1e+02;

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APPLICANT: Homburger et al.

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 54302
LENGTH: 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 40960, Application US/09270767

Batent No. 6703491

GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REPERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767

NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 40960
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APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: FILE REFERENCE: 71326-094
CURRENT APPLICATION NUMBER: 03/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 56176
LENGTH: 133
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; Sequence 56176, Application US/09270767
; Patent No. 6703491
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US-09-270-767-54302
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Best Local Similarity luv...
4, Conservative
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Best Local Similarity
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Query Match

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GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REPERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NOS: 33142
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                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Ni et al.
TITLE OF INVENTION: 32 Human secreted proteins;
FILE REFRENCE: P2044P1
CURRENT FILING DATE: 2001-03-08
CURRENT FILING DATE: 2000-09-22
PRIOR APPLICATION NUMBER: 60/155,709
PRIOR FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 217
SOFTWARE: Patentin Ver. 2.0
SSOFTWARE: Patentin Ver. 2.0
SSOFTWARE: 135
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100.0%; Pred. No. 4.2e+02
0; Mismatches
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-18704
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Best Local Similarity 100.
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Best Local Similarity
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Matches 4; Conserv
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US-09-800-729-194
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Sequence 2332, Application US/09540236

Patent No. 6673910

GENERAL INFORMATION:

TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS

FILE REFERENCE: 2709.2005-001

CURRENT APPLICATION NUMBER: US/09/540,236

CURRENT FILING DATE: 2000-04-04

NUMBER OF SEQ ID NOS: 3840

SEQ ID NO 2332
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Patent No. 6562958;
GENERAL INFORMATION:
TITLE OF INVENTION: WCLEIC ACID AMINO ACID SEQUENCES RELATING TO ACINETOBACTER;
TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
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US-09-621-976-4315
Sequence 4315, Application US/09621976
Sequence 4315, Application US/09621976
Setent No. 6639063
Setent No. 6639063
SENERAL INFORMATION:
SEPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Glordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2.
CURRENT FILING DATE: 2000-07-21
CURRENT FILING DATE: 2000-07-21
SOFTWARE: Patent.pm
SEQ ID NO 4315
LENGTH: 139
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; OTHER INFORMATION: Xaa = Glu, Lys
US-09-621-976-4315
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Best Local Similarity 100...
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US-09-540-236-2332
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Best Local Similarity
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89 HARL 92
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APPLICANT: Gary L. Breton et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
FILE REPERENCE: GTC99-03PA
CURRENT APPLICATION NUMBER: US/09/328,352
CURRENT FILING DATE: 1999-06-04
NUMBER OF SEQ ID NOS: 8252
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Patent No. 6703491

GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REPERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 52481
LENGTH: 136
           GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 32264
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; Patent No. 6562958
                                                                                                                                                                                                                                                      ORGANISM: Drosophila melanogaster US-09-270-767-37264
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CRGANISM: Acinetobacter baumannii
US-09-328-352-7201
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
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US-7-2-1-34A-3-1/9

Sequence 32709, Application US/09252991A

Patent No. 6551795

GENERAL INFORMATION:
PAPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

TITLE OF INVENTION:
TITLE OF INVENTION:
AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT FILING DATE: 1999-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 32709

LENGTH: 148
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100.0%; Score 21; DB 4; Length 146;
Best Local Similarity 100.0%; Pred. No. 4.5e+02;
Matches 4; Conservative 0; Mismatches 0; Indels
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FILE REFERENCE: GTC99-03PA
CURRENT APPLICATION NUMBER: US/09/328,352
CURRENT FILING DATE: 1999-06-04
SUMBER OF SEQ ID NOS: 8252
SEQ ID NO 4538
LENGTH: 146
                                                                                                                                   TYPE: PRT CRGANISM: Acinetobacter baumannii US-09-328-352-4538
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-32709
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Best Local Similarity 100.
Matches 4; Conservative
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24 HARL 27
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Sequence 10, Appl Sequence 396, App Sequence 396, App Sequence 397, App Sequence 397, App Sequence 397, App Sequence 397, App Sequence 37, App Sequence 37, App Sequence 37, App Sequence 39, App Sequence 31, App Sequence 367, App Sequence 31, App Sequence 29, App Sequence 31, Ap
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Sequence 775, App
Sequence 258682,
Sequence 1075, Ap
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Sequence 364790,
Sequence 202467,
Sequence 274663,
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Sequence 274663,
Sequence 274663,
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Sequence 309713,
Sequence 172910,
Sequence 224012,
Sequence 349760,
Sequence 8876, Ap
US-09-855-604-775
US-10-425-115-258682
US-09-796-692-1075
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                          GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-10-146-130-15
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US-10-146-130-18
US-10-146-130-24
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US-10-146-130-21
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Maximum Match 100%
Listing first 100 summaries
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No.
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Sequence 17, Application US/10146130
Publication No. US20030004107A1
GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
TITLE OF INVENTION: NEURAL THREAD PROTEINS
TITLE OF INVENTION: NEURAL THREAD PROTEINS
TITLE OF INVENTION: NEURAL THREAD PROTEINS
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT PILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTIN VOIT: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: AVERBACK, PAUL
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: NEURAL THREAD PROTEINS
FILE REFERENCE: 59003.000007
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 18
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| Publication No. US20030004107A1
| GENERAL INFORMATION:
| APPLICANT: AVERBACK, PAUL
| TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF TITLE OF INVENTION: METHOD OF PREVENTINS
| FILE REFERENCE: 59003.000007 |
| CURRENT APPLICATION NUMBER: US/10/146,130 |
| CURRENT FILING DATE: 2002-08-06 |
| NUMBER OF SEQ ID NOS: 43 |
| SOFTWARE: Patentin Ver. 2.1
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Best Local Similarity luv...
4, Conservative
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ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
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US-10-146-130-18
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US-10-146-130-24
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Sequence 2266, Ap
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Sequence 251053,
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Sequence 16, Application US/10146130

Sequence 16, Application US/10146130

Publication No. US20030004107A1

GENERAL INFORMATION:

APPLICANT: AVERBACK, PAUL

TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF TITLE OF INVENTION: USURAL THREAD PROTEINS

FILE REFERENCE: 59003.000007

CURRENT APPLICATION NUMBER: US/10/146,130

CURRENT FILING DATE: 2002-08-06

NUMBER OF SEQ ID NOS: 43

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 16
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Sequence 15, Application US/10146130

Sequence 15, Application US/10146130

Sequence 15, Application US/20030004107A1

GENERAL INFORMATION:

APPLICANT: AVERBACK, PAUL

TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF TITLE OF INVENTION: METHOD OF PROTEINS

FILE REFERENCE: 59003.000007

CURRENT APPLICATION NUMBER: US/10/146,130

CURRENT FILING DATE: 2002-08-06

NUMBER OF SEQ ID NOS: 43

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 15
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4 US-10-040-862-1075

5 US-10-057-475B-1075

5 US-10-154-88BB-1075

6 US-10-424-599-27011

6 US-09-764-891-5266

6 US-10-424-599-249890

6 US-10-424-599-249890

6 US-10-424-599-158105

6 US-09-982-610-6

7 US-10-424-599-158105

6 US-10-424-599-158105

6 US-10-424-599-158105

7 US-10-741-600-1528

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7 US-10-424-599-221947
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      Ouery Match
Best Local Similarity 100.0
      ORGANISM: Homo sapiens
US-10-146-130-16
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CORGANISM: Homo sapiens
US-10-146-130-15
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Sequence 42, Application US/10146130 Publication No. US20030004107A1 GENERAL INFORMATION:
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US-10-146-130-19
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TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: NEURAL THREAD PROTEINS
FILE REPERENCE: 59003.000007
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PALCHIN Ver. 2.1
SEQ ID NO 31
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Publication No. US20030004107A1
GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: NERRAL THREAD PROTEINS
FILE REPERENCE: S9003.000007
CURRENT FILIAG DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTIN VET. 2.1
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100.0%; Pred. No. 1.6e+06;
ative 0; Mismatches 0;
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Best Local Similarity 100...
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Best Local Similarity 100.
Matches 4; Conservative
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                                  TYPE: PRT CORGANISM: Homo sapiens US-10-146-130-24
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US-10-146-130-31
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; ORGANISM: Homo sapiens
US-10-146-130-41
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Best Local Similarity
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; SEQ ID NO 24
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RESULT 8 US-10-146-130-42

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Sequence 21, Application US/10146130

Publication No. US20030004107A1

GENERAL INFORMATION:

GENERAL INFORMATION:

TITLE OF INVENTION: MEURAL THREAD PROTEINS

TITLE OF INVENTION: NEURAL THREAD PROTEINS

FILE REPERENCE: 59003.00007

CURRENT APPLICATION NUMBER: US/10/146,130

CURRENT FILING DATE: 2002-08-06

NUMBER OF SEQ ID NOS: 43

SOFTWARE: Patentin Ver. 2.1

LENGTH: 7
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Fublication No. US2030004107A1
GENEAL INFORMATION:
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: METHOD OF PREVENTING
FURBER REFERENCE: 59003.000.007
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: Patentin Ver. 2.1
APPLICATT: AVERBACK, PAUL
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: METHOD OF PREVENTINS
FILE REPERENCE: 59003.000007
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTIN Ver. 2.1
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100.0%; Pred. No. 1.6e+06;
tive 0; Mismatches 0;
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100.0%; Pred. No. 1.6e+06;
tive 0; Mismatches 0;
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
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US-10-146-130-42
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; ORGANISM: Homo sapiens
US-10-146-130-19
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US-10-146-130-21
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Gaps
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TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF TITLE OF INVENTION: NEURAL THREAD PROTEINS
FILE REPERENCE: 59003.000007.
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 40
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100.0%; Pred. No. 1.6e+06;
iive 0; Mismatches 0;
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100.0%; Pred. No. 1.6e+06;
tive 0; Mismatches 0;
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Publication No. US20040180354A1

GENERAL INFORMATION:
APPLICANT: Sinard, John J. L.
APPLICANT: Liu, Liping
TITLE REPERENCE: MANNK. 032A
CURRENT FILING DATE: 2003-09-04
CURRENT FILING DATE: 2003-09-04
PRIOR PRILCATION NUMBER: 60/409123
PRIOR FILING DATE: 2002-09-06
NUMBER: PSEQID NOS: 610
SOFTWARE: PSECSEE for Windows Version 4.0
SEQ ID NO 390
LENGTH: B
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Publication No. US20040180354A1

GENERAL INFORMATION:
APPLICANT: Sinard, John J. L.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
TITLE REPERENCE: MANNK. 012A
CURRENT FILING DATE: 2003-09-04
CURRENT FILING DATE: 2003-09-04
PRIOR PILING DATE: 2002-09-06
NUMBER OF SEQ ID NOS: 610
SOCTWARE: FEBSEEQ for Windows Version 4.0
SEQ ID NO 396
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Best Local Similarity 100.
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Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                          TYPE: PRT
ORGANISM: Homo sapiens
US-10-146-130-40
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; ORGANISM: Homosapiens
US-10-657-022-390
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APPLICANTON: US20030004107A1
GENERAL INFORMATION:
APPLICANT: APERACK, PAUL
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: NEURAL THREAD PROTEINS
FILE REFERENCE: 59003.00007
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT APPLICATION NUMBER: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 10, Application US/10935254
Publication No. US20050054752A1
GENERAL INFORMATION:
APPLICANT: OBLIEN, John P
TITLE OF INVENTION: Peptide-Based Diblock and Triblock Dispersants
FILE REFERENCE: CL2252 US NA
CURRENT FILING DATE: 2004-09-07
NUMBER OF SEQ ID NOS: 122
SOFTWARE: PatentIn version 3.2
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         Length 7;
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100.0%; Pred. No. 1.6e+06;
ive 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sequence 40, Application US/10146130; Publication No. US20030004107A1
; PUBLICATION No. US20030004107A1
; APPLICANT: AVERBACK, PAUL
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Best Local Similarity 100..
                                          4; Conservative
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; ORGANISM: Homo sapiens
US-10-146-130-22
       Query Match
Best Local Similarity
Matches 4; Conserv
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Matches 4; Conserv
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US-10-146-130-40
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                          0; Indels
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      ; Pred. No. 1.6e+06; 0; Mismatches 0;
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Pred. No. 1.6e+06;
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APPLICANT: Simard, John J. L.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
APPLICANT: Liu, Liping
APPLICANT: Liu, Zheng
TITLE OF INVENTION: EPITOPE SEQUENCES
FILE REFERENCE: MANNK. 032A
CURRENT APPLICATION NUMBER: US/10/657,022
CURRENT FILING DATE: 2003-09-04
PRIOR FILING DATE: 2003-09-06
NUMBER OF SEQ ID NOS: 610
SOFTWARE: PRESEQ for Windows Version 4.0
SSOFTWARE: PRESEQ for Windows Version 4.0
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APPLICANT: Diamond, David C.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Libing
APPLICANT: Liu, Zheng
TITLE OF INVENTION: EPITOPE SEQUENCES
FILE REFERENCE: MANNK.032A
CURRENT APPLICATION NUMBER: 105/10/657,022
CURRENT FILING DATE: 2003-09-04
PRIOR FILING DATE: 2002-09-06
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Sequence 393, Application US/10657022; Publication No. US20040180354A1; GENERAL INFORMATION:
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o. US20040180354A1
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Best Local Similarity 100.
                        4; Conservative
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CORGANISM: Homosapiens
US-10-657-022-391
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US-10-657-022-393
    Best Local Similarity
Matches 4; Conserva
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Best Local Similarity
Matches 4; Conserv
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Publication No.
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US-10-657-022-393
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Publication No. US20050106100A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Bristol-Myers Squibb
APPLICANT: Harris, Thomas D.
APPLICANT: Valamanchili, Padmaja
TITLE OF INVENTION: COMPOUNDS CONTAINING MATRIX METALLOPROTEINASE UBSTRATES AND
TITLE OF INVENTION: METHODS OF THEIR USE
FILE REFERENCE: PH7492 NP
CURRENT APPLICATION NUMBER: US/10/931,627
CURRENT PILING DATE: 2003-09-031
PRIOR FILING DATE: 2003-09-03
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                                                                             100.0%; Score 21; DB 16;
100.0%; Pred. No. 1.6e+06;
ive 0; Mismatches 0;
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100.0%; Pred. No. 1.6e+06;
ative 0; Mismatches 0;
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Publication No. US20040180354A1
GENERAL INFORMATION:
APPLICANT: Simand, John J. L.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
APPLICANT: Liu, Liping
APPLICANT: Liu, EPITOPE SEQUENCES
FILE REFERENCE: MANNK.032A
CURRENT FILING DATE: 2003-09-04
PRIOR PILING DATE: 2003-09-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; FEATURE:
; OTHER INFORMATION: Synthetic Polypeptide
US-10-931-627-15
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 388
LENGTH: 9
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PRIOR FILING DATE: 2003-09-03
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin version 3.2
SEQ ID NO 15
                                                                                                                   4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
; TYPE: PRT
; ORGANISM: Homosapiens
US-10-657-022-396
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Best Local Similarity
Matches 4; Conserv
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Sequence 37.7, Application No. US2005006455A1

GENERAL INFORMATION:

APPLICANT: Marshall, Shannon

TITLE OF INVENTION: CILIARY NEUROTROPHIC FACTOR VARIANTS
FILE REPERSENCE: 34431/US

CURRENT APPLICATION NUMBER: US/10/888,348

CURRENT PILING DATE: 2004-07-09

PRIOR APPLICATION NUMBER: US 60/485,941

PRIOR FILING DATE: 2003-07-09

PRIOR FILING DATE: 2003-12-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 36, Application US/10888348

Publication No. US20050064555A1

GENERAL INFORMATION:
APPLICANT: Marshall, Shannon
APPLICANT: Marshall, Shannon
FILE REFERENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348

CURRENT PELING DATE: 2004-07-09
PRIOR APPLICATION NUMBER: US 60/485,941
PRIOR APPLICATION NUMBER: US 60/528,229
PRIOR PILING DATE: 2003-07-09
PRIOR PILING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 165
SOFTWARE: PatentIn version 3.3
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100.0%; Pred. No. 1.6e+06;
iive 0; Mismatches 0;
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             PRIOR APPLICATION NUMBER: US 60/485,941
PRIOR FILING DATE: 2003-07-09
PRIOR FILING DATE: 2003-07-08
NUMBER OF SEQ ID NOS: 165
SOFTWARE: Patentin Version 3.3
SEQ ID NO 32
LENGTH: 9
2004-07-09
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Matches 4; Conservative
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Matches 4; Conservative
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ORGANISM: Artificial
CURRENT FILING DATE:
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US-10-888-348-36
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APPLICANT: Barbosa, Maria
TITLE OP INVENTION: CILIARY NEUROTROPHIC FACTOR VARIANTS
FILE REFERENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 21; DB 16;
100.0%; Pred. No. 1.6e+06;
iive 0; Mismatches 0;
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             Sequence 395, Application US/10657022

Fublication No. US20040180354A1

GENERAL INFORMATION:

APPLICANT: Simacd, John J. L.

APPLICANT: Diamond, David C.

APPLICANT: Liu, Libing

TITLE OF INVENTION: EPITOPE SEQUENCES

FILE REFERENCE: MANNK. 032A

CURRENT APPLICATION NUMBER: US/10/657,022

CURRENT PILING DATE: 2003-09-04

PRIOR PILING DATE: 2003-09-06

NUMBER OF SEQ ID NOS: 610

SOFTWARE: FASTSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Simard, John J. L.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
TITLE OF INVENTION: EPITOPE SEQUENCES
FILE REFERENCE: MANNK. 032A
CURRENT APPLICATION NUMBER: US/10/657,022
CURRENT PILING DATE: 2003-09-04
PRIOR APPLICATION NUMBER: 60/409123
PRIOR FILING DATE: 2003-09-06
NUMBER OF SEQ ID NOS: 610
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 397
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Best Local Similarity 100...
4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 100.
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: Homosapiens
US-10-657-022-395
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                                                                                                           100.0%; Score 21; DB 17; Length 9; 100.0%; Pred. No. 1.6e+06;
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FILE REFERENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348
CURRENT APPLICATION NUMBER: US 60/485,941
FRIOR APPLICATION NUMBER: US 60/485,941
FRIOR PLICATION NUMBER: US 60/528,229
FRIOR PLICATION NUMBER: US 60/528,229
FRIOR FILING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 165
SOFTWARE: Patentin version 3.3
SEQ ID NO 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Marball, Shannon
APPLICANT: Marball, Shannon
APPLICANT: Marball, Shannon
PPLICANT: Marball, Shannon
PPLICANT: Barbosa, Maria
TITLE OF INVENTION: CLLIARY NEUROTROPHIC FACTOR VARIANTS
FILE REPERENCE: 34431/08
CURRENT APPLICATION NUMBER: US 60/485,941
FRIOR PLING DATE: 2003-07-09
PRIOR APPLICATION NUMBER: US 60/528,229
PRIOR APPLICATION NUMBER: US 60/528,229
PRIOR APPLICATION NUMBER: US 60/528,229
PRIOR PELING DATE: 2003-12-08
NUMBER OF EQ ID NOS: 165
SOFTWARE: Patentin version 3.3
SEQ ID NO 84
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100.0%; Pred. No. 1.6e+06;
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Publication No. US20050064555A1
GENERAL INFORMATION:
                          ; FEATURE:
; OTHER INFORMATION: synthetic
US-10-888-348-69
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; OTHER INFORMATION: synthetic
US-10-888-348-84
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Marshall, Shannon APPLICANT: Barbosa, Maria
                                                                                                         Query Match
Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity
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ORGANISM: Artificial
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ORGANISM: Artificial
    ORGANISM: Artificial
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APPLICANT: Marehall, Shannon
TITLE OF INVENTION: CLILARY NEUROTROPHIC FACTOR VARIANTS
FILE REPRENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348
CURRENT FILING DATE: 2004-07-09
PRIOR PILING DATE: 2003-07-09
PRIOR APPLICATION NUMBER: US 60/528,229
PRIOR PILING DATE: 2003-12-08
PRIOR PILING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 165
SOFTWARE: PATENTIN VERSION 3.3
                                                                                                                                                                                                                     Length 9;
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APPLICANT: Barbosa, Maria
TITLE OF INVENTION: CILIARY NEUROTROPHIC FACTOR VARIANTS
FILE REFERENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348
CURRENT FILING DATE: 2004-07-09
PRIOR PILING DATE: 2003-07-09
PRIOR PLICATION NUMBER: US 60/485,941
PRIOR PLICATION NUMBER: US 60/528,229
PRIOR FILING DATE: 2003-07-09
PRIOR FILING DATE: 2003-12-08
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; Sequence 69, Application US/10888348
; Publication No. US20050064555A1
; GENERAL INFORMATION:
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NUMBER OF SEQ ID NOS: 165
SOFTWARE: PatentIn version 3.3
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SOFTWARE: PatentIn version 3.3
                                                                                                                                         ) OTHER INFORMATION: synthetic US-10-888-348-37
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Best Local Similarity 100..
4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
                                                                                     TYPE: PRT
ORGANISM: Artificial
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                                          SEQ ID NO 37
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LENGTH: 9
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                                                                                                                         Sequence 113.

Sequence 113.

Publication No. US2005006455A1

GENERAL INFORMATION:

APPLICANT: Marshall, Shannon

APPLICANT: Marshall, Shannon

TITLE OF INVENTION: CILIARY NEUROTROPHIC FACTOR VARIANTS

FILE REFERENCE: 34431/US

CURRENT APPLICATION NUMBER: US/10/888,348

CURRENT PILING DATE: 2004-07-09

PRIOR APPLICATION NUMBER: US 60/485,941

PRIOR APPLICATION NUMBER: US 60/528,229

PRIOR FILING DATE: 2003-07-09

PRIOR FILING DATE: 2003-01-208

PRIOR FILING DATE: 2003-01-208

SOFTWARE: PATENTIN NOWER: US 60/528,229

SOFTWARE: PATENTIN VERSION 3.3

SEQ ID NOS: 153

SEQ ID NO 153
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APPLICANT: Marehall, Shannon
APPLICANT: Barbosa, Maria
TITLE OF INVENTION: CLILARY NEUROTROPHIC FACTOR VARIANTS
TITLE REPERENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348
CURRENT FILING DATE: 2004-07-09
PRIOR APPLICATION NUMBER: US 60/485,941
PRIOR APPLICATION NUMBER: US 60/528,229
PRIOR PRILOR DATE: 2003-07-09
PRIOR PILLING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 165
SOFTWARE: PATENTIN VERSION 3.3
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100.0%; Pred. No. 1.6e+06;
iive 0; Mismatches 0;
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US-10-888-348-154
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Best Local Similarity 100.0
Matches 4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
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                   HARL 8
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US-10-888-348-154
                                                                                                                  US-10-888-348-153
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LENGTH: 9
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Publication No. US20050064555A1

GENERAL INFORMATION:
APPLICANT: Marshall, Shannon
APPLICANT: Marshall, Shannon
APPLICANT: Barbosa, Maria
TITLE OF INVENTION: CILIARY NEUROTROPHIC FACTOR VARIANTS
FILE REFERENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348
CURRENT FILING DATE: 2004-07-09
PRIOR APPLICATION NUMBER: US 60/485,941
PRIOR FILING DATE: 2003-07-09
PRIOR FILING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 165
SOFTWARE: Patentin Version 3.3
SEQ ID NO 102
100.0%; Score 21; DB 17; Length 9; 100.0%; Pred. No. 1.6e+06; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                      APPLICANT: Marchall, Shannon
APPLICANT: Marchall, Shannon
TITLE OF INVENTION: CLILARY NEUROTROPHIC FACTOR VARIANTS
TITLE OF INVENTION: CLILARY NEUROTROPHIC FACTOR VARIANTS
FILE REPERRENCE: 34431/US
CURRENT APPLICATION NUMBER: US 60/485,941
FRIOR APPLICATION NUMBER: US 60/485,941
FRIOR FILING DATE: 2003-07-09
FRIOR APPLICATION NUMBER: US 60/528,229
FRIOR APPLICATION NUMBER: US 60/528,229
FRIOR PRILING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 165
SOFTWARE: PatentIn version 3.3
SEQ ID NO 88
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Best Local Similarity 100.0%; Pred. No. 1.6e+06;
Matches 4; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                     Sequence 88, Application US/10888348
Publication No. US20050064555A1
GENERAL INFORMATION:
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                                               4; Conservative
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  Query Match
Best Local Similarity
Matches 4; Conserv
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Publication No. US20040180354A1
GENERAL INFORMATION:
APPLICANT: Simard, John J. L.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
APPLICANT: Liu, Liping
APPLICANT: Liu, EPITOPE SEQUENCES
FILE REFERENCE: MANNK.032A
CURRENT APPLICATION NUMBER: US/10/657,022
CURRENT FILING DATE: 2003-09-04
PRIOR FILING DATE: 2003-09-06
NUMBER OF SEQ ID NOS: 610
SEQ ID NO 392
LENGTH: 10
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APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
APPLICANT: Liu, Liping
TITLE OF INVENTION: EPITOPE SEQUENCES
FILE REFERENCE: MANN. 032A
CURRENT APPLICATION NUMBER: US/10/657,022
CURRENT PILING DATE: 2003-09-04
PRIOR APPLICATION NUMBER: 60/409123
PRIOR FILING DATE: 2002-09-06
NUMBER OF SEQ ID NOS: 610
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 389
                                                       NUMBER OF SEQ ID NOS: 610
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 387
LENGTH: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 389, Application US/10657022
Publication No. US20040180354A1
GENERAL INFORMATION:
CURRENT FILING DATE: 2003-09-04
PRIOR APPLICATION NUMBER: 60/409123
PRIOR FILING DATE: 2002-09-06
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                                                                                                                                                        ; ORGANISM: Homosapiens
US-10-657-022-387
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; ORGANISM: Homosapiens
US-10-657-022-389
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ORGANISM: Homosapiens
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Best Local Similarity
Matches 4; Conserva
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US-10-657-022-392
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US-10-146-130-39
US-10-146-130-39
Sequence 39, Application US/10146130
Publication No. US20030004107A1
GENERAL INFORMATION:
APPLICANT: APERBACK, PAUL
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: NEURAL THREAD PROTEINS
TITLE OF INVENTION: NOWBER: US/10/146,130
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTIN VOE: 2.1
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                                                                   APPLICANT: Marshall, Shannon
APPLICANT: Marshall, Shannon
APPLICANT: Barbosa, Maria
TITLE OF INVENTION: CILLARY NEUROTROPHIC FACTOR VARIANTS
FILE REFERENCE: 34431/US
CURRENT APPLICATION NUMBER: US/10/888,348
CURRENT APPLICATION NUMBER: US 60/485,941
PRIOR PILING DATE: 2003-07-09
PRIOR FILING DATE: 2003-12-08
PRIOR FILING DATE: 2003-12-08
NUMBER OF SEQ ID NOS: 165
SOOTHWARE: Patentin version 3.3
SEQ ID NO 157
LENGTH: 2
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2.1e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Simard, John J. L.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
APPLICANT: Liu, Zheng
TITLE OF INVENTION: EPITOPE SEQUENCES
FILE REFERENCE: MANNK. 032A
            Sequence 157, Application US/10888348
Publication No. US20050064555A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 387, Application US/10657022 Publication No. US20040180354A1 GENERAL INFORMATION:
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Best Local Similarity 10v...
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Best Local Similarity 100.
Matches 4; Conservative
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CORGANISM: Homo sapiens
US-10-146-130-39
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ORGANISM: Artificial
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Sequence 17, Application US/10153334

Sublication No. US2003006350A1

Sublication No. US2003006350A1

GAPLICANT: AVERBACK, PAUL

TITLE OF INVENTION: CONDITIONS REQUIRING THE TREATMENT OF TUMORS AND OTHER

TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF

TITLE OF INVENTION: CALLS

TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF

TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF

TITLE OF INVENTION: CONDITIONS REQUIRING THE REPERSON OF

TITLE OF INVENTION OF

TITLE OF INVENTION OF

TITLE OF SOURCE 2002-06-24

CURRENT APPLICATION NUMBER: 60/293,156

PRIOR APPLICATION NUMBER: 60/293,156

PRIOR APPLICATION NUMBER: 60/293,156

SPRIOR FILING DATE: 2001-06-25

NUMBER OF SEQ ID NOS: 53

SOUTHARE: PARENTING PARENTING THE TREATMENT OF TUMOR APPLICATION OF

SEQ ID NO 17

LENGTH: 14
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US-10-146-130-37
US-10-146-130-37
; Sequence 37, Application US/10146130
; Publication No. US20030004107A1
; GENERAL INFORMATION:
; APPLICANT: AVERBACK, PAUL
; TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
; TITLE OF INVENTION: NUMBER: US/10/146,130
; CURRENT APPLICATION NUMBER: US/10/146,130
; CURRENT FILING DATE: 2002-08-06
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 37
; LENGTH: 14
Sequence 35, Application US/10146130
Publication No. US20030004107A1
GENERAL INFORMATION:
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: NEURAL THREAD PROTEINS
FILE REPRENENTE: 59003.000007
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PatentIn Ver. 2.1
ERNGTH: 13
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Matches 4; Conservative
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; ORGANISM: Homo sapiens
US-10-146-130-35
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Publication No. US20030004107A1
GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: NEURAL THREAD PROTEINS
FILE REFERENCE: S9003: 000007
CURRENT FILIAG DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTI VILIAG DATE: 2.1
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                                                     100.0%; Score 21; DB 16; Length 10; 100.0%; Pred. No. 2.1e+02;
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                                                                                                   Indels
                                                                                                   0; Mismatches
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CURRENT FILING DATE: 2003-09-04
PRIOR PILING DATE: 2003-09-06
NUMBER OF SEQ ID NOS: 610
SOFTWARE: PastSEQ for Windows Version 4.0
LENGTH: 10
                                                                                                                                                                                                                                                                                                           Sequence 394, Application US/10657022; Publication No. US20040180354A1
GENERAL INFORMATION:
APPLICANT: Simard, John J. L.
APPLICANT: Diamond, David C.
APPLICANT: Liu, Liping
APPLICANT: Liu, Liping
TITLE OF INVENTION: EPITOPE SEQUENCES
FILE REFERENCE: MANNK. 032A
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Best Local Similarity 100.
Matches 4; Conservative
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CORGANISM: Homo sapiens
US-10-146-130-36
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US-10-657-022-394
                                                Query Match
Best Local Similarity
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         US-10-657-022-392
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US-10-146-130-35
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LENGTH: 12
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; Sequence 33, Application US/10146130; Publication No. US20030004107A1; GENERAL INFORMATION:
                                                           ; Sequence 66, Application US/10744964; Publication No. US20050085411A1; GENERAL INFORMATION: APPLICANT: Howley, Peter M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Sequence 13, Application US/10153334
; Publication No. US20030096350A1
; GENERAL INFORMATION:
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US-10-744-964-66
                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
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US-10-146-130-33
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Best Local Similarity
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LENGTH: 16
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TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: METHOD OF PROTEINS
FILE REPERBUCE: 59003.00000.
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT PILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTIN Ver. 2.1
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                                                         Length 14;
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APPLICANT: Benson, John
APPLICANT: Benson, John
APPLICANT: Rasukawa, Hiroaki
APPLICANT: Rasukawa, Hiroaki
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: PAPILLOMAVIRUS-INFECTED CELLS
FILLE REPRENCE: HMV-041.01
CURRENT APPLICATION NUMBER: US/10/161,499
CURRENT FILING DATE: 2002-06-03
PRIOR APPLICATION NUMBER: US/09/347,504
PRIOR PILLING DATE: 1999-07-02
NUMBER OF SEQ ID NOS: 79
SOFTWARE: PATENTIN VET. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 21; DB 14; Length 15; 100.0%; Pred. No. 3.1e+02;
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                                                                                                Indels
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                                                       100.0%; Score 21; DB 14;
100.0%; Pred. No. 2.9e+02;
ative 0; Mismatches 0;
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                                                                                                                                                                                                                                                                  Sequence 38, Application US/10146130 Publication No. US20030004107A1 GENERAL INFORMATION:
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Publication No. US20030044427A1
GENERAL INFORMATION:
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Best Local Similarity luv...
4, Conservative
                                                         Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
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US-10-161-499-66
; ORGANISM: Homo sapiens US-10-153-334-17
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; ORGANISM: Homo sapiens
US-10-146-130-38
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ORGANISM: Homo sapiens
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Best Local Similarity
Matches 4; Conserv
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TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THE TREATMENT OF TUMORS AND OTHER
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF
FILE REFERENCE: 59003-000006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: METHAD OF PREVENTINS
FILE REFERENCE: 59003.000003.
CURRENT APPLICATION NUMBER: US/10/146,130
CURRENT FILING DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTIN VET. 2.1
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APPLICANT: Benson, John
APPLICANT: Raukawa, Hiroaki
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING
TITLE OF INVENTION: PAPILLOMAVIRUS-INFECTED CELLS
FILE REFERENCE: HWV-041.01
CURRENT APPLICATION NUMBER: US/10/744,964
CURRENT PILING DATE: 2091.12-23
PRIOR APPLICATION NUMBER: US/09/347,504
NUMBER OF SEQ ID NOS: 79
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 66
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; Sequence 1366, Application US/10296734
; Publication No. US20040054137A1
; GENERAL INFORMATION:
; APPLICANT: Thompson, Scott A
; APPLICANT: Ramshaw, Ian A
; TITLE OF INVENTION: Synthetic molecules and uses therefor FILE REFERENCE: Savine
; CURRENT APPLICATION NUMBER: US/10/296,734
; CURRENT FILING DATE: 2003-08-04
; PRIOR APPLICATION NUMBER: AV PQ7761/00
PRIOR FILING DATE: 2000-05-26
; NUMBER: OF SEQ ID NOS: 1507
; SCFTWARE: PatentIn version 3.2
; SEQ ID NO 1386
                                                                                                                                   RESULT 50
US-10-296-734-1384
is Squence 1384, Application US/10296734
j Publication No. US20040054137A1
j GENERAL INFORMATION:
j APPLICANT: Hompson, Scott A
j APPLICANT: Ramshaw, Ian A
j TILLE OF INVENTION: Synthetic molecules and uses therefor FILE REPERENCE: Savine
j CURRENT APPLICATION NUMBER: US/10/296,734
CURRENT FILING DATE: 2003-08-04
j PRIOR PILING DATE: 2000-05-26
j NUMBER OF SEQ ID NOS: 1507
j SOFUMARE: ParentIn version 3.2
j SEQ ID NO 1384
j LENGTH: 30
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100.0%; Pred. No. 5.9e+02;
tive 0; Mismatches 0; Indels
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    Mismatches
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Best Local Similarity 100.
Matches 4; Conservative
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    4; Conservative
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Best Local Similarity
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ORGANISM: Artificial
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US-10-394-511-108
    Matches
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Sequence 46, Application US/10153334

Sequence 46, Application US/10153334

Publication No. US20030096350A1

GENERAL INFORMATION:

APPLICANT: AVERBACK, PAUL

TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF

TITLE OF INVENTION: CELLS

FILE REFERENCE: 59003-000006

CURRENT APPLICATION NUMBER: US/10/153,334

CURRENT FILING DATE: 2002-05-24

PRIOR FILING DATE: 2001-05-25
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Publication No. US20030004107A1
GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
TITLE OF INVENTION: METHOD OF PREVENTING CELL DEATH USING SEGMENTS OF
TITLE OF INVENTION: WEDRAL THREAD PROTEINS
FILE REFERENCE: 59003.000007
CURRENT PILIOR DATE: 2002-08-06
NUMBER OF SEQ ID NOS: 43
SOFTWARE: PATENTIN Ver. 2.1
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Pred. No. 3.3e+02;
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CURRENT APPLICATION NUMBER: US/10/153,334
CURRENT FILING DATE: 2002-05-24
PRIOR APPLICATION NUMBER: 60/293,156
PRIOR FILING DATE: 2001-05-25
NUMBER OF SEQ ID NOS: 53
SOFTWARE: PACENTIN VEr. 2.1
SEQ ID NO 13
LENGTH: 16
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Best Local Similarity 100...
4; Conservative
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SOFTWARE: PatentIn Ver. 2.1
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Best Local Similarity 100.
Matches 4; Conservative
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US-10-153-334-46
                                                                                                                                                           TYPE: PRT
CORGANISM: Homo sapiens
US-10-153-334-13
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US-10-146-130-12
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Best Local Similarity
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LENGTH: 18
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LENGTH: 17
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        GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N: EXPRESSED IN BRAIN, SIGNAL = 3.2
N: EXPRESSED IN BONE MARROW, SIGNAL = 3.6
N: EXPRESSED IN LUNG, SIGNAL = 3.5
N: EXPRESSED IN HBL100, SIGNAL = 3.5
N: EXPRESSED IN PLACENTA, SIGNAL = 3.1
N: EXPRESSED IN PLACENTA, SIGNAL = 4.0
N: EXPRESSED IN HEAPL, SIGNAL = 2.9
N: EXPRESSED IN HEAPL, SIGNAL = 2.9
N: EXPRESSED IN HEAPL, SIGNAL = 2.9
N: EXPRESSED IN HEAPL, SIGNAL = 3.3
N: EXPRESSED IN HEAPL, SIGNAL = 3.3
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SEQ ID NO 37322
LENGTH: 32
                                                                             CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR PILING DATE: 2000-05-04
PRIOR PLING DATE: 2000-05-24
PRIOR PELING DATE: 2000-05-26
PRIOR PLING DATE: 2000-08-03
PRIOR PLING DATE: 2000-08-03
PRIOR PLING DATE: 2000-10-04
PRIOR PLING DATE: 2000-10-04
PRIOR PLING DATE: 2000-10-04
PRIOR PLING DATE: 2000-10-04
PRIOR PLING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/USO1/00661
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR PLING DATE: 2000-09-21
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ORGANISM: Homo sapiens
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Matches 4; Conserv
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Patent No. US20020048763A1
GENERAL INFORMATION:
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Hanzel, David K.
APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                             APPLICANT: BOTGFORM, Thor
TITLE OF INVENTION: Ricin-Like Toxin Variants for Treatment of Cancer,
TITLE OF INVENTION: Viral or Parasitic Infections
TITLE OF INVENTION: Viral or Parasitic Infections
FILE REPRENCE: 10447-27
CURRENT APPLICATION NUMBER: US/10/394,511
CURRENT PILING DATE: 2003-03-24
PRIOR APPLICATION NUMBER: US 09/403,752
PRIOR APPLICATION NUMBER: US 60/063,715
PRIOR APPLICATION NUMBER: US 60/045,148
PRIOR PELING DATE: 1997-10-30
NUMBER OF SEQ ID NOS: 142
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 108
LENGTH: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
; OTHER INFORMATION: Mutant preproricin linker region for MMP-11, pAP-284
US-10-394-511-108
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TITLE OF INVENTION: Targeted release
FILE REFERENCE:
CURRENT APPLICATION NUMBER: US/10/651,584C
CURRENT FILING DATE: 2003-08-30
NUMBER OF SEQ ID NOS: 111
SEQ ID NO 58
LENGTH: 31
Sequence 108, Application US/10394511
Publication No. US20040009551A1
GENERAL INFORMATION:
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
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ORGANISM: Unknown
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Sequence 155544, Application US/10424599
Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT:
Zhou Yihua
APPLICANT:
APPLICANT:
APPLICANT:
So Yongwei
TITLE OF INVENTION:
FILE REPRENEUE:
TITLE OF INVENTION:
FILE REPRENEUE:
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT PILING DATE:
CURRENT PILING DATE:
SEQ ID NOS: 285684
SEQ ID NOS: 285684
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Publication No. US20040031072A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Show Yihua
APPLICANT: Show Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERBNCE: 38-21(53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
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                                                                                                                                                                                                                                                                                                                                                                                                                             Length 33;
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US-10-424-599-159544
                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 21; DB 17;
100.0%; Pred. No. 6.5e+02;
iive 0; Mismatches 0;
             PRIOR APPLICATION NUMBER: US/10/799,747
PRIOR FILING DATE: 2004-03-15
PRIOR FILING DATE: 2004-03-15
PRIOR FILING DATE: 2004-07-16
PRIOR PILING DATE: 1999-03-31
PRIOR APPLICATION NUMBER: US/09/281,976
PRIOR PILING DATE: 1999-03-31
PRIOR PILING DATE: 1997-10-02
PRIOR PILING DATE: 1997-10-02
PRIOR PILING DATE: 1997-10-02
NUMBER OF SEQ ID NOS: 390
SOFTWARE: PATENT VET: 2.0
SEQ ID NO 367
LENGTH: 33
2004-11-03
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100..
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US-10-979-183-367
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ORGANISM: Glycine max
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100.0%; Pred. No. 6.5e+02;
rative 0; Mismatches 0; Indels
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                APPLICANT: Rosen et. al
TITLE OF INVENTION: 101 Human Secreted Proteins
FILER REPERENCE: PZ017P1
CURRENT APPLICATION NUMBER: US/10/195,730
CURRENT FILING DATE: 2002-07-16
PRIOR PLING DATE: 1999-03-31
PRIOR PILING DATE: 1999-03-31
PRIOR FILING DATE: 1997-10-02
PRIOR FILING DATE: 1997-10-02
PRIOR FILING DATE: 1997-10-02
NUMBER OF SEQ ID NOS: 390
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 367
LENGTH: 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: 101 Human Secreted Proteins
TITLE OF INVENTION: 101 Human Secreted Proteins
FILE REPREBNCE: PZ017P1
CURRENT APPLICATION NUMBER: US/10/799,747
CURRENT PILING DATE: 2004-03-15
PRIOR FILING DATE: 2002-07-16
PRIOR FILING DATE: 1999-03-31
PRIOR FILING DATE: 1999-03-31
PRIOR FILING DATE: 1999-03-31
PRIOR FILING DATE: 1999-03-31
PRIOR FILING DATE: 1997-10-02
PRIOR FILING DATE: 1997-10-02
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TITLE OF INVENTION: 101 Human Secreted Proteins
FILE REFERENCE: PZO17P1
CURRENT APPLICATION NUMBER: US/10/979,183
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Best Local Similarity 100...
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SOFTWARE: Patentin Ver. 2.0
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Best Local Similarity 100.
Matches 4; Conservative
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US-10-195-730-367
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US-10-799-747-367
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US-10-979-183-367
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Sequence 286477, Application US/10425115
Publication No. US20040214272A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Chou, Yihua
APPLICANT: 20212428
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
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                                Length 38;
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                                100.0%; Score 21; DB 16; 100.0%; Pred. No. 7.4e+02;
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100.0%; Pred. No. 7.4e+02;
tive 0; Mismatches 0;
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US-10-425-115-299407
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                                                                       Mismatches
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                              Query Match 100.
Best Local Similarity 100.
Matches 4; Conservative
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Best Local Similarity 100.
Matches 4; Conservative
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Matches 4; Conserv
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ORGANISM: Zea mays
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LENGTH: 38
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Publication No. US20040031072A1
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: Snow Yihua
APPLICANT: Cano Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
TITLE REFERENCE: 38-21(53223)
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 178775
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Publication No. US20040214272A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Plants
TITLE OF INVENTION: Plants
FILE REFERENCE: 38-21 (5322) B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
UNDHER OF SEQ ID NOS: 369326
SEQ ID NO 189470
LENGTH: 38
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US-10-424-599-248110
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NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 248110
LENGTH: 36
                                                                                             TYPE: PRT
ORGANISM: Glycine max
FEATURE:
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ORGANISM: Glycine max
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Best Local Similarity
Matches 4; Conserv
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APPLICANT: Boukharov, Andrey A.
APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21153221)
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 201259
LENGTH: 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 237297, Application US/10425115
Publication No. US20040214272A1
Sequence 237297, Application US/10425115
Publication No. US20040214272A1
SEQUENCE INFORMATION:
APPLICANT: Kovalic, David K.
APPLICANT: Town, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants
FILE REPERBACE: 38-21 (53222) B
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT PILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 237297
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US-10-437-963-201259
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100.0%; Pred. No. 7.7e+02;
tive 0; Mismatches 0;
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100.0%; Pred. No. 7.9e+02;
tive 0; Mismatches 0;
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; OTHER INFORMATION: Clone ID: MRT4577_1479C.1.pep
US-10-425-115-237297
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OTHER INFORMATION: unsure at all Xaa locations
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Best Local Similarity 100.0
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Best Local Similarity 100.
Matches 4; Conservative
Zhou, Yihua
Cao, Yongwei
                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Oryza sativa
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ORGANISM: Zea mays
                                              Wu, Wei
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1 LOCATION: (310)
2 OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-764-891-3493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCATION: (27)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
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| Publication No. US20030077808A1
| GENERAL INFORMATION:
| APPLICANT: Rosen et al.
| TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
| FILE REFERENCE: PC006
| CURRENT APPLICATION NUMBER: US/09/764,891
| CURRENT FILING DATE: 2001-01-17
| Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 10231
| SOFTWARE: Patentin Ver. 2.0
| SEQ ID NO 3493
| LENGTH: 40
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                                                               Sequence 4, Application US/10900680

Publication No. US20050037432A1

GENERAL INFORMATION:

APPLICANT: Pharmacia Corporation

APPLICANT: Arner, Elizabeth

APPLICANT: Malfait, Anne-Marie

TITLE OF INVENTION: Novel Biomarkers of Aggrecanase Activity

FILE REFERENCE: 01194

CURRENT APPLICATION NUMBER: US/10/900,680

CURRENT FILING DATE: 2004-07-28

NUMBER OF SEQ ID NOS: 9

SOFTWARE: PatentIn version 3.2
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Publication No. US20040123343A1
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Kovalic, David K.
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Best Local Similarity 100.
Matches 4; Conservative
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US-10-900-680-4
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ORGANISM: Homo sapiens
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                                                 US-10-900-680-4
                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
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GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Rovalic David K
APPLICANT: Rovalic David K
APPLICANT: Anou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
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US-10-424-599-161949
                                                                                                                                                                                                                                                      ; OTHER INFORMATION: Clone ID: PAT_MRT3847_24853C.1.pep
US-10-424-599-202467
                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 21; DB 15; 100.0%; Pred. No. 8.4e+02;
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; Publication No. US20040031072A1
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; Publication No. US20040031072A1
; GENERAL INFORMATION:
       CURRENT FILING DATE: 2003-0-
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 202467
LENGTH: 44
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Best Local Similarity 100..
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                                                                                                                                                 TYPE: PRT
ORGANISM: Glycine max
FEATURE:
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ORGANISM: Glycine max
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Best Local Similarity
Matches 4; Conserv
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US-10-424-599-161949
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TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With FITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement FILE REPERENCE: 38-21 (53223) B CURRENT APPLICATION NUMBER: US/10/424,599 CURRENT FILING DATE: 2003-04-28 CURRENT FILING DATE: 2003-04-28 SEQ ID NOS: 285684
SEQ ID NO 177046
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Publication No. US20040031072A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa Thomas J
APPLICANT: Kovalic David K
APPLICANT: Town Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(5223)B
CURRENT APPLICATION NUMBER: US/10/424,599
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APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Carrier of the control of the c
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US-10-424-599-177046
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OTHER INFORMATION: unsure at all Xaa locations
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Best Local Similarity 100.
Matches 4; Conservative
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Matches 4; Conservative
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ORGANISM: Zea mays
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NAME/KEY: unsure
LOCATION: (1)..(4
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and Other Molecules Associated With

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Length 44; Indela

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APPLICANT: La Rosa Thomas J
APPLICANT: La Rosa Thomas J
APPLICANT: Kovalic David K
APPLICANT: Xovalic David K
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REPERENCE: 38-21(53223)B
CURRENT APPLICATION: NUMBER: US/10/424,599
CURRENT FILIDIMG DATE: 2003-04-28
NUMBER OF SEC ID NOS: 285684
SEC ID NO 274063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Clone ID: PAT_MRT3847_8949C.1.pep
US-10-424-599-274063
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Sequence 267080, Application US/10425115
| Sequence 267080, Application US/10425115
| Publication No. US20040214272A1
| GENERAL INFORMATION:
| APPLICANT: La Rosa Thomas J.
| APPLICANT: Kovalic, David K.
| APPLICANT: Application Nucleic Acid Molecules and Other Molecules Associated With
| TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
| TITLE OF INVENTION: Plants
| TITLE OF INVENTION: Plants
| TITLE OF UNGRITON: Plants
| TITLE OF UNGRITON: 2020-4-28
| CURRENT APPLICATION NUMBER: 2003-04-28
| UNDER OF SEQ ID NOS: 369326
| SEQ ID NO 267080
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US-10-425-115-267080
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Best Local Similarity 100.
Matches 4; Conservative
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ORGANISM: Zea mays
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RESULT 75
US-10-425-115-267080
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APPLICANT: La Rosa Thomas J
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APPLICANT: Should K
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APPLICANT: Cao Yongwai
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223) B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT APPLICATION NUMBER: US/10/424,599
SEQ ID NOS: 285684
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Publication No. US20040214272A1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: La Rosa, Thomas J.
APPLICANT: Zhou, Yihua
APPLICANT: Zhou, Yihua
APPLICANT: Chou, Yihua
APPLICANT: Chou, Yihua
APPLICANT: Chou, Youlaic
TITLE OF INVENTION: Plants
TITLE OF INVENTION: Plants
TITLE OF INVENTION: Plants
CURRENT APPLICATION NUMBER: US/10/425,115
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 369326
SEQ ID NO 315130
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100.0%; Score 21; DB 15; Length 46; 100.0%; Pred. No. 8.8e+02; ive 0; Mismatches 0; Indels
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US-10-424-599-170899
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100.0%; Pred. No. 8.8e+02;
vative 0; Mismatches 0;
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US-10-425-115-315130
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US-10-424-599-170899
; Sequence 170899, Application US/10424599
; Publication No. US20040031072A1
; GENERAL INFORMATION:
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Best Local Similarity 100.
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Best Local Similarity 100.
Matches 4; Conservative
                                              4; Conservative
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ORGANISM: Glycine max
Query Match
Best Local Similarity
Matches 4; Conserv
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